ISSN 1173-5996

Bench Scale Testing of Light Timber Frame Walls

BY

Per Ake Olsson

Supervised by

Dr Andy Buchanan

Fire Engineering Research Report 98/6
June 1998

This report was presented as a project report
as part of the M.E. (Fire) degree at the University of Canterbury

School of Engineering
University of Canterbury
Private Bag 4800
Christchurch, New Zealand

Phone 643 364-2250
Fax 643 364-2758

Table of Contents

Abstract

Wood studs protected with gypsum plasterboards have been tested in the cone calorimeter to investigate the possibility of using a conical radiator to predict furnace behaviour for light timber frame walls. Other phenomena, such as the behaviour of gypsum boards, insulation materials and wood when exposed to high heat flux, have also been of interest during the experimental and theoretical work.

It has been shown that it is not possible to use a constant heat flux in the cone calorimeter to achieve the similar charring rate and time to onset of char as those observed in full-scale experiments.

The results from the cone calorimeter tests have been compared with predictions from a finite element method heat transfer software using thermal properties recommended in the literature. The model has thereafter been calibrated to give better predictions by modifying the thermal properties of gypsum. The calibrated model has been used to simulate furnace tests. The simulation results have later been compared with the measured full-scale data.

It has been concluded that a computer model can be used to calibrate the thermal properties to agree better with the experimental temperature measurements in the wood. The simulated charring rate corresponded well with the charring rates that were measured in the furnace tests but the model overpredicted the time to onset of char.

Chapter 1 Introduction

1.1 Background

There is a continuous need to investigate the behaviour of light timber frame structural elements in fire situations by the means of fire testing. Although there has been increased development of computer models specifically for the structural or thermal analysis, there remains the requirement for validation of specific computer models by physical testing (O'Connor et al., 1996). Some models also require input from test for calibration, as the case is for light timber frame wall heat transfer models (Buchanan and Gerlich, 1997).

Fire tests are expensive. Hence, small-scale testing would be particularly advantageous. The justification for a small scale testing approach to the reaction of the components in a light timber frame wall system exposed to a fire, stems from the fact that fire is a complex phenomenon, which does not allow accurate mathematical solutions derived from first principles. It is possible with a reduce scale test method, to repeat a number of tests at a small cost, and allow for a parametric study and calibration of simple thermal models.

The advantages of scale testing compared with computer modelling are that the variation of thermal properties with the temperature, and effects of moisture, are automatically take into account (O'Connor et al., 1996).

Light timber frame walls have traditionally been tested in full-scale tests according to ISO 834, or similar standard, with a specimen size of 3m by 3m. Reduced scale techniques have been developed by Konig et al. (1991) and Sultan et al. (1994). However, these models still require a complex procedure and are quite costly. Lazaros et al. (1996) therefore investigated the possibility of predicting the time to onset of charring, and charring rate for timber studs in the cone calorimeter. The

predictions were successful up to the time at which the board would have fallen off the wall in the full-scale test.

1.2 Purpose

The main purpose of the research performed was to investigate the possibility of using a conical radiator to predict furnace behaviour for light timber frame walls.

Other phenomenon, such as the behaviour of gypsum boards, insulation materials and wood when exposed to high heat flux, were of interest during the experimental and theoretical work.

This report was presented as a fire engineering research report and a partial fulfilment of the requirements for the Masters Degree in Fire Engineering at University of Canterbury, Christchurch, New Zealand.

1.3 Scope

This report describes the ongoing and most recent research in the field of predicting the thermal behaviour of light timber frame walls. The international review covers both the aspects of experimental methods and theoretical models.

The bench-scale test method used, together with the materials and equipment chosen for the research, are comprehensively presented in the experimental part of the report.

The results from the cone calorimeter tests are displayed in tabular form and figures in the report. The data are analysed and compared with furnace test data.

The results from the cone calorimeter tests have been compared with predictions from a finite element method heat transfer software using thermal properties recommended in the literature. The model has been calibrated to give better

predictions by modifying the thermal properties of gypsum. The calibrated model has been used to simulate furnace test, which have been compared with the measured full-scale data in the report.

Finally, the report concludes the research results and recommends areas in which further research should be emphasised.

Chapter 2 Ongoing work

Table 2.1 summarises the ongoing and most recent international work in the field of predicting the behaviour of light timber frame walls during fire exposure. The list of institutions is not complete, but several institutions are named and the work being carried out is divided into the following three categories:

- Bench-scale tests
- Reduced scale tests
- Full-scale tests
- Heat transfer modelling

The table is not to be seen as being complete in any way, but should give an indication of the state of art and the type of work being carried out.

Table 2.1: Summary overview of ongoing international work.

Institute	Tratek, Sweden	Forintek, Canada	UoC, New Zealand	NRCC, Canada	VUT, Australia	BRANZ, New Zealand
Bench-scale tests	Cone calorimeter					
Reduced scale tests	small furnace tests			small furnace tests		small furnace tests
Full-scale tests	ISO 834			CAN/UL C-S101-M89		ISO 834
Heat transfer modelling		FD	FEM		FD	FD

Key: NIST = National Institute of Science and Technology
UoC = University of Canterbury
NRCC = National Research Council Canada
VUT = Victoria University of Technology
BRANZ = Building Research Association of New Zealand

ISO 834 = ISO 834 standard furnace tests

CAN/ULC-S101-M89 = Canadian standard furnace test

FEM = Finite Element Method heat transfer model

FD = Finite Difference heat transfer model

2.1 Full scale tests

Full-scale tests are performed continuously for approval of light timber frame walls at test institutions world-wide. The different tests are mainly the ISO 834, ASTM E119, AUS1530.4 and CAN/ULC-S101-M89 furnace tests, which have all very similar fire exposure curves. The thermocouple data collected from these tests are generally the temperatures of the gypsum board and the wood stud surfaces. This is done to determine the time to insulation failure. The thermocouple data are therefore normally not suitable for research because it is necessary to know the temperature inside the wood stud during the test for research purposes.

Data available, where heat transfer has been measured throughout the wood stud for research purposes, is limited and mainly concentrated and measured at BRANZ (Thomas, 1997), NRCC (Sultan, 1994) and Tratek (Lazaros et al., 1996).

BRANZ tested several wall constructions in their full-scale furnace (3*4) m with a fire exposure in accordance with ISO 834 (Thomas, 1997). They measured the temperature throughout the wood stud, and at the gypsum board and the wood stud surfaces, during the test for the following constructions:

- 45*90 mm wood studs protected with one layer of 9.5 mm Fyreline gypsum board on each side.
- 45*69 mm wood studs protected with one layer of 12.5 mm Fyreline gypsum board on each side.
- 35*90 mm wood studs protected with one layer of 14.5 mm Fyreline gypsum board on each side.

- 45*90 mm wood studs protected with one layer of 16 mm Fyreline gypsum board on each side.

Tratek performed several tests for research purposes in their full-scale furnace (3*3) m with a fire exposure in accordance with ISO 834 (Lazaros et al., 1996). They measured the temperature throughout the wood stud, and at the gypsum board and wood stud surfaces, during the test for the following constructions:

- 45*145 mm wood studs protected with one layer of 12.5 mm standard Gyproc board on each side.
- 45*145 mm wood studs protected with one layer of 16 mm Gyproc F gypsum board on each side.

NRCC tested two light timber frame wall constructions for Forintek for research purposes in their full-scale furnace (3*3) m with fire exposure in accordance with CAN/ULC-S101-M89 (Mehaffey et al., 1994). They measured the temperature throughout the wood stud, and at the gypsum board and wood stud surfaces, during the test for the following constructions:

- 38*89 mm wood studs protected with one layer of 12.7 mm Type C gypsum board on each side.
- 38*89 mm wood studs protected with one layer of 15.9 mm Type X gypsum board on each side.

2.2 Reduced scale tests

In an attempt to reduce the cost and complexity of the full-scale furnace tests, there have been several attempts to develop a reduced scale test method.

BRANZ (Collier, 1996), NRCC (Blanchard and Harmathy, 1964), and Tratek (Konig and Noren, 1991) have all developed different reduced scale techniques for the testing of light timber frame wall constructions.

BRANZ used a pilot furnace with dimensions of 2220*1030 mm to test light timber frame walls at a reduced scale (Collier, 1996). They measured the temperature throughout the wood stud, and at the gypsum board and wood stud surfaces, during the ISO 834 exposure test, for the following constructions:

- 45*70 mm wood studs protected with one layer of 9.5 mm Fyreline gypsum board on each side.
- 45*69 mm wood studs protected with one layer of 9.5 mm Fyreline gypsum board on each side.
- 45*90 mm wood studsprotected with one layer of 9.5 mm Fyreline gypsum board on each side.

Konig and Noren (1991) developed a small scale furnace with dimensions of 1000*600 mm for testing of gypsum-board/wood-stud constructions. They measured the temperature throughout the wood stud, and at the gypsum board and wood stud surfaces, during the ISO 834 exposure test, for the following constructions:

- 45*145 mm wood studs protected with one layer gypsum plaster board on each side.
- 45*95 mm wood studs protected with one layer gypsum plaster board on each side.
- 45*195 mm wood studs protected with one layer gypsum plaster board on each side.

NRCC have developed a (Blanchard and Harmathy, 1964) small-scale wall furnace with an inconel panel as a heating element with dimensions of 740*790 mm. NRCC measured the temperature throughout the wood stud, and at the gypsum board and wood stud surfaces, during the CAN/ULC-S101-M89 fire exposure test, for the following constructions (Mehaffey et al., 1994):

- 38*89 mm wood studs protected with one layer of 12.7 mm Type C gypsum board on each side.
- 38*89 mm wood studs protected with one layer of 15.9 mm Type X gypsum board on each side.
- 38*89 mm wood studs protected with two layers of 15.9 mm Type X gypsum board on each side.

2.3 Bench-scale tests

The reduced scale tests were still too complicated and expensive, especially when heat transfer is the main interest. Lazaros et al (1996) of Tratek therefore developed a bench-scale test carried out with the Cone Calorimeter.

Wood studs protected with 13 mm standard Gyproc gypsum boards and 16 mm Gyproc F gypsum boards were exposed to a constant radiation of 50 kW/m^2. The cavity was insulated with mineral wool.

2.4 Heat transfer modelling

The modelling work is done using numerical heat transfer solutions with a finite element method (FEM) or a finite difference method (FD). Mehaffey et al (1994) of Forintek and Clancy et al (1996) of VUT have developed heat transfer programs, which solve the two-dimensional general heat conduction equation (see equation 2.4.1) with a finite difference method. Thomas (1997) used the existing heat transfer software TASEF, which solves the general two dimensional heat conduction equation (see equation 2.4.1) with a finite element method. The two dimensional general heat transfer equation can be described as (Tucker, 1997):

$$\frac{\partial}{\partial x}\left(k\frac{\partial T}{\partial x}\right)+\frac{\partial}{\partial y}\left(k\frac{\partial T}{\partial y}\right)=\rho c\frac{\partial T}{\partial t}-Q \qquad (2.4.1)$$

where

T is the temperature (°C),

k is the thermal conductivity (W/mK),

c is the specific heat (J/kgK),

ρ is the density (kg/m^3) and,

Q is the element heat generation.

The processes, which transmit heat between the boundaries, are radiation and convection. The general equation for radiation and convection, assuming a grey body and two infinite parallel plates, can be described as below (Tucker, 1997) and are used by Mehaffey et al (1994), Thomas (1997) and Clancy et al (1996).

$$q_n = h\,(T_g - T_b) + \varepsilon_r\,\sigma\,(T_g^4 - T_b^4) \qquad (2.4.2)$$

where

q_n is the net heat flow at the boundary (W/m^2),

h is the convection heat transfer coefficient (W/m^{2}K)

T_g is the gastemperature (K),

T_b is the boundary temperature (K),

ε_r is the resultant emissivity and

σ is the Stefan - Boltzmann constant (W/m^{2}K^4).

The computer models used by Mehaffey et al (1994), Thomas (1997) and Clancy et al (1996) differ somewhat in their treatment of the heat transfer in the void. Mehaffey et al. assumed that the heat is transferred between the cavity gas and the gypsum boards and the wood studs by both convection and radiation. Clancy assumed that the heat transfer through cavity barrier can be approximately modelled with an equivalent solid plate with diffusivity varying with positions and temperature. The FEM model TASEF, which was used by Thomas, ignored the specific heat of air in

the cavity, and assumes that heat is transferred in the void by convection and radiation between the gypsum board and wood stud surfaces.

Collier (1996) used a more simple model, which only calculated the heat transfer between the gypsum boards with a finite difference method. Collier did not calculate the heat transfer in the wood.

Chapter 3 Bench-scale testing

3.1 Objectives

The experimental studies performed in this report were done to research the following parameters:

- The ability of to predict the char depth from thermocouple measurements in bench-scale tests.
- The effect of gypsum plasterboard protection on char characteristics.
- The effect of open joints on char characteristics.
- The effect of insulation on char characteristics.
- The effect of different radiation heat flux from the cone calorimeter on char characteristics.
- The behaviour of lining paper when exposed to high radiant heat.
- Cracking, ablation and structural stability of the gypsum board when exposed to high radiant heat.

3.2 Variables tested

3.2.1 Edge charring effects

A residual section of a wood stud generally shows that more severe charring occurred at the edges of the wood stud than in the centre of the wood stud, in a furnace test (Thomas, 1997). This is mainly due to the heat radiation from the gypsum board. A larger specimen holder was made to study these effects, since it was believed that the use of the standard cone-calorimeter holder would result in no specific edge charring.

3.2.2 Stud size

For charring data from the cone-calorimeter to be relevant for prediction of fire resistance for light timber frame wall systems fabricated in New Zealand, the wood studs were made of New Zealand radiata pine and had a cross-sectional area of 45 mm by 90 mm. However, an increasing number of light timber frame walls have a wood stud size of 35 mm by 90 mm. The effect of the cross-sectional area of the wood stud on char characteristics was also tested.

3.2.3 Board thickness and type

The gypsum board was manufactured in New Zealand and widely used in residential and industrial buildings. The charring rate for different thicknesses of boards and for different types of board was investigated.

3.2.4 Joint opening between sheets

In spite of attempts by wallboard manufacturers to limit shrinkage of boards with the addition of glass fibres and other proprietary materials to gypsum, Richardson et al. (1989) reported that board shrinkage does occurs, which results in an opening at the joint. The joint opening width is depending on board type. As a result, initial insulation and integrity failure in light timber frame wall systems, almost always occurs along the joint system between adjacent wallboard panels. The wood stud will be directly exposed to the fire at the joint. Hence, it was of interest to investigate the charring of the wood at the open joint and its dependence on the joint width.

3.2.5 Insulation

The cavity was filled with glass fibre wool and natural wool in two different tests. This was done to study the effects of an insulated cavity on char characteristics, the differences in the insulation materials behaviour when they are exposed to high

radiation, and to investigate the charring prediction ability when the wall assembly is insulated.

3.2.6 Heat flux

It is necessary in the bench-scale testing to study the material behaviour at different heat fluxes to derive the material properties and to discover unpredictable effects such as ablation and cracking. Hence, an initial heat flux of 25 kW/m^2 was used, which is the heat flux generated in the fire compartment at the initial growth and before flashover. We also tested the specimens at heat radiations of 50 kW/m^2, 75 kW/m^2 and 100 kW/m^2, which are the heat fluxes generated in the fire compartment at high ventilation and after flashover. The different levels of radiation are equal to the furnace radiation levels at 2, 9, 18 and 35 minutes at the standard ISO 834 test, as can be seen in figure 3.2.1.

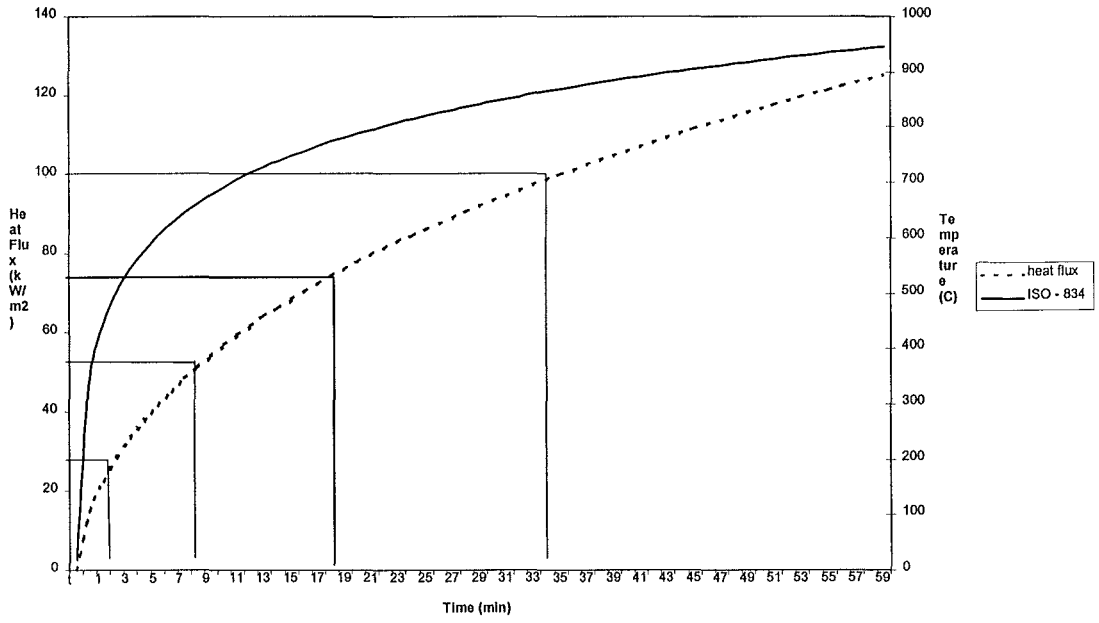


Figure 3.2.1: Temperature and heatflux from furnace versus time for an ISO 834 fire.

Chapter 4 Materials and equipment

4.1 Timber

The framing timber used was kiln dried Radiata Pine (Pinus Radiata) from the Nelson region. It had a cross-sectional area of 45*90 mm. One test was performed with kiln dried Radiata Pine with dimensions of 35*90 mm. The timber was bought locally from a building supplier.

4.2 Gypsum plasterboard

Gypsum plasterboards manufactured by Winstone Wallboards Ltd, were used. The plasterboards were supplied by Winstone Wallboards Ltd and were locally available. Both fire rated board and standard board were used as presented in table 1.

Table 4.2.1: Used gypsum plasterboards

Brand name	Thickness (mm)
Fyreline	9.5
Fyreline	12.5
Fyreline	16
Fyreline	19
Standard GIB board	9.5
Standard GIB board	12.5

4.3 Thermocouples

Type K (chromel Vs alumel), thermocouples which were insulated with spun glass, double wrap silicone impregnation on each wire and single glass braid with silicone impregnation overall, were used to measure the temperatures within the specimens,

which were exposed to the radiant heat from the conical radiator. The thermocouples were manually welded together with mercury.

4.4 The Cone Calorimeter

NIST developed the cone calorimeter specifically to measure rate of heat release of burning objects and materials. The cone calorimeter is an accurate instrument with good repeatability.

The cone calorimeter, which is schematically shown below, essentially consists of two components: a bench scale calorimeter instrumented to determine rate of heat release, smoke, carbon monoxide and carbon dioxide, and a fire model based on a conical radiant heater to burn specimens in a repeatable manner. It is only the latter, which is used in this study, since we are only interested in heat transfer, not the gases that are generated by the pyrolys and dehydration.

The cone calorimeter is shown in figure 4.4.1.

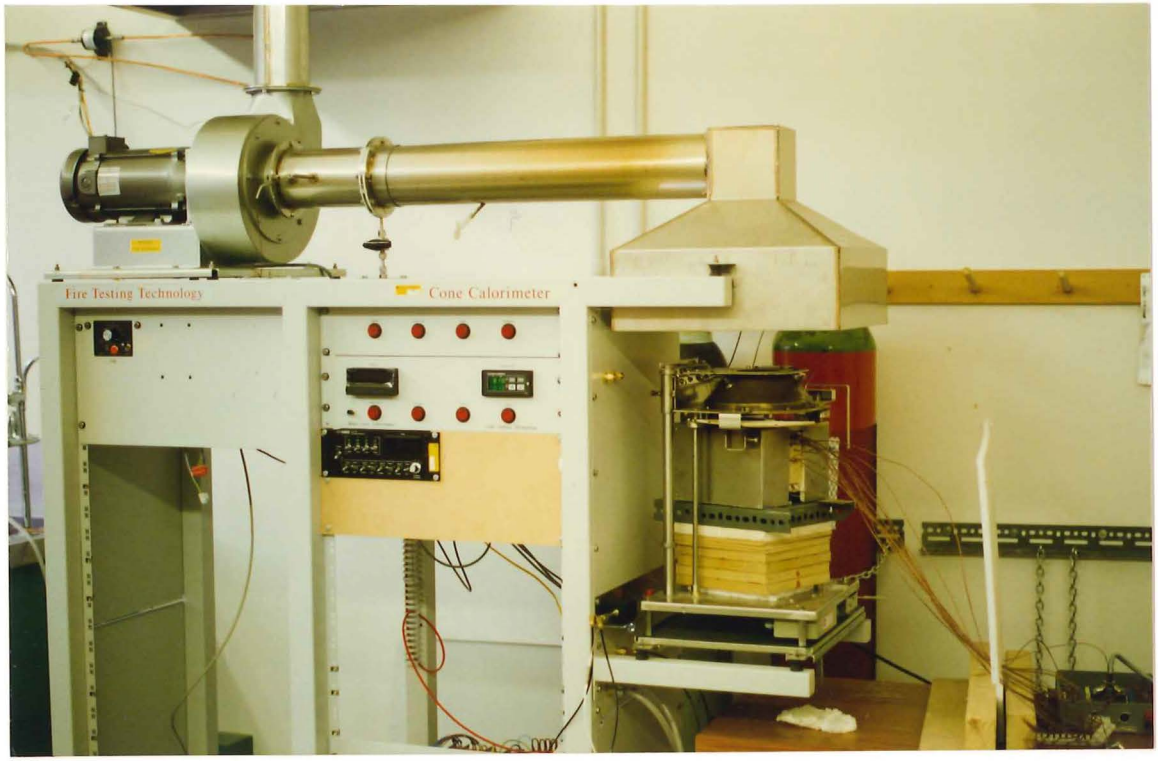


Figure 4.4.1: The cone calorimeter.

The conical radiator can be varied from 10 kW/m^2 to 100 kW/m^2, which essentially covers the range from early stages of fires to developed fires.

The cone calorimeter was purchased from Fire Test Technology, UK.

Chapter 5 Test Procedure

5.1 Sectioning of timber and gypsum

Each section of the 6 meter long timber was initially cut into 3 meter long pieces with a circular machinesaw. The timber was cut into 160 mm lengths to fit in the specimen holder just before the start of the experiment.

The gypsum plasterboard sheets were cut with a knife and later finished to the square dimension of 160*160 mm.

5.2 Determination of density and moisture content

Four 160 mm long pieces of the timber were weighed and measured. Their density was calculated. The moisture content of each stud was then determined by oven drying at 105 °C for 24 hours. The density and moisture content are given in table 5.2.1. The densities of the gypsum plasterboards were measured with the same method described above and are presented in table 5.2.1.

Table 5.2.1: Measured density and moisture content of wood and gypsum

	Test Density (kg/m^3)	*Moisture content (%)*
Wood stud 1 (45*90 mm)	550	11
Wood stud 2 (45*90 mm)	590	12
Wood stud 3 (45*90 mm)	580	13
Wood stud 34 (35*90 mm)	490	12
Fyreline 9.5 mm	730	
Fyreline 12.5 mm	760	
Fyreline 16 mm	860	
Standard GIB 9.5 mm	690	
Standard GIB 12.5 mm	720	

5.3 Drilling for thermocouple insertion into specimens

A series of 2 mm wide holes were drilled parallel to the grain to different depths, as shown in figure 5.3.1 and 5.3.2. The holes were initially drilled using a metal template and a short drill bit. A longer series drill bit was used to achive the desired hole depth. The drill had a tendency to follow the wood fibres. Hence, the drill holes were not all parallel. The actual thermocouple placement inside the stud was therefore measured after the experiment. This data was used if the difference between the theoretical depth and the measured depth was large.

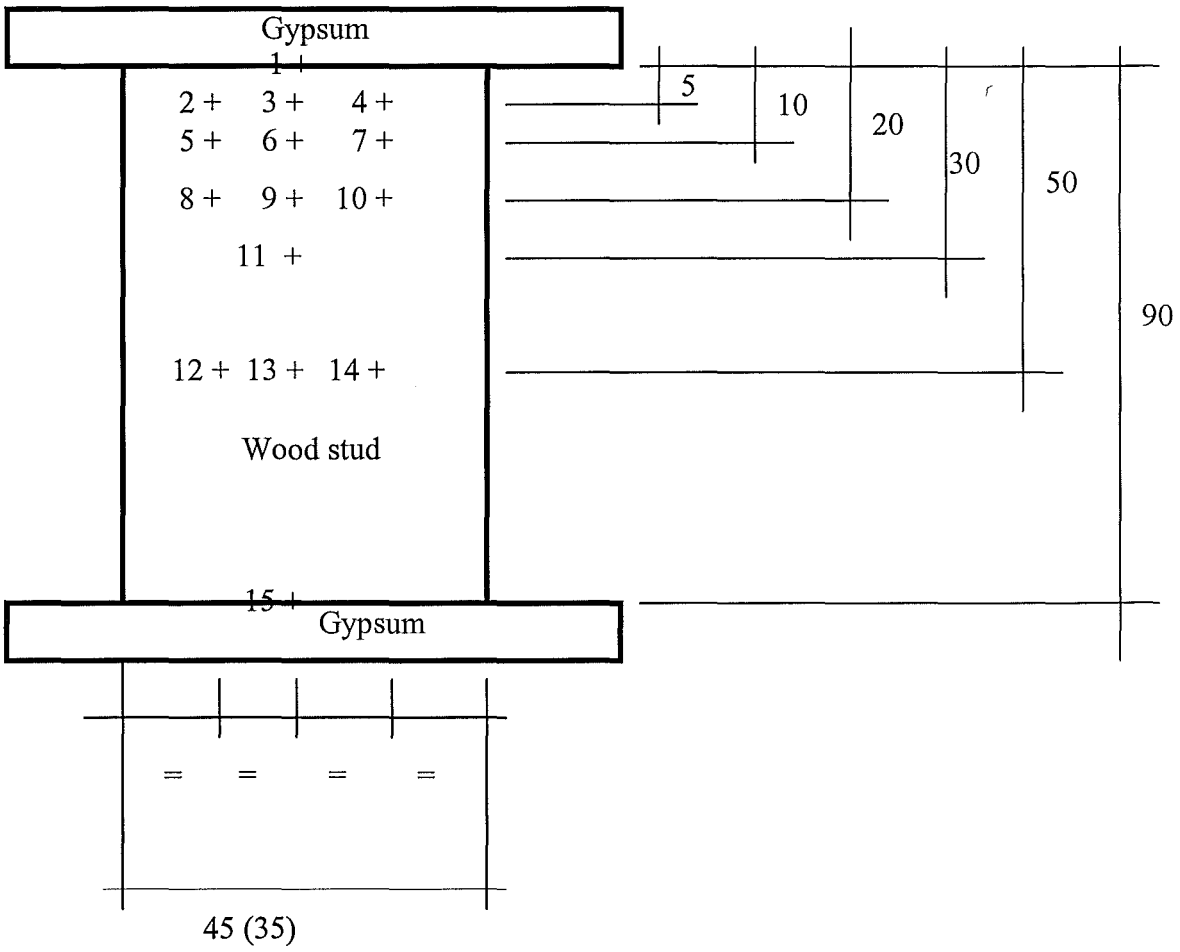


Figure 5.3.1: Thermocouple placement in the wood stud (not to scale).

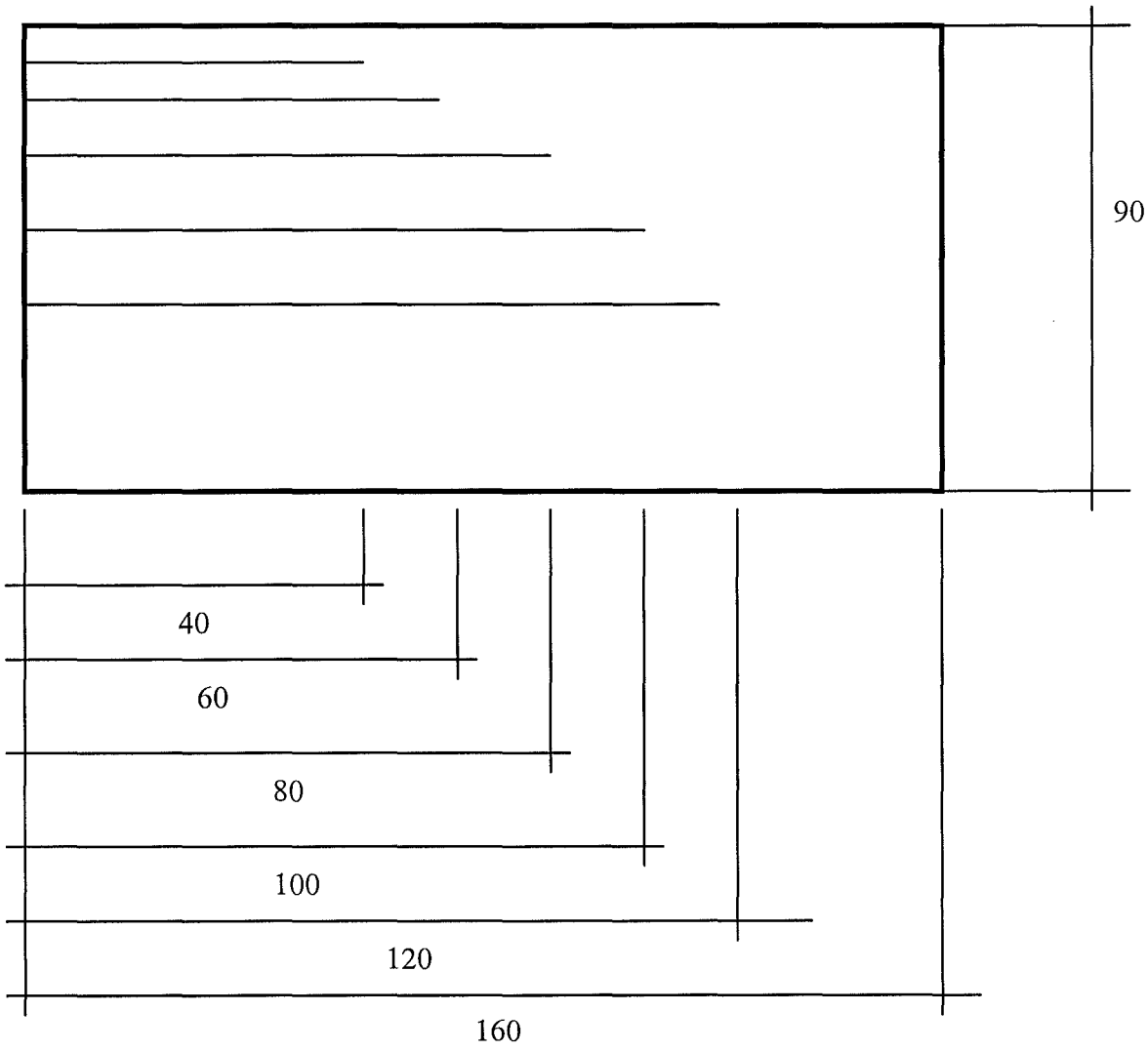


Figure 5.3.2: Side view of thermocouple placement in wood stud (not to scale).

5.4 Insertion of thermocouple placement

The thermocouples were placed in the drilled holes with some difficulties, due to the small hole diameter. A larger hole diameter, however, would remove too much wood and could have affected the charring. The small diameter contributed to a very good sealing of the holes.

5.5 Gypsum attachment to the wood stud

The gypsum was attached to the wood stud using standard screws supplied by Winstone Wallboards Ltd. Lengths of 32 mm and 41 mm were used, dependent on the thickness of the boards, in accordance with the recommendations. The screws were placed in the centre of the wood stud and the specimen holder. One screw was used on each side of the wall assembly.

5.6 Storage of specimen

The wood studs and the gypsum boards were stored in a nominal atmosphere of 20 °C and 60% relative humidity at least three weeks prior to the exposure in the test furnace.

5.7 Specimen placement in cone calorimeter

The specimens were placed inside a specimen holder that was located 25 mm under the conical radiator (see figure 5.7.1).

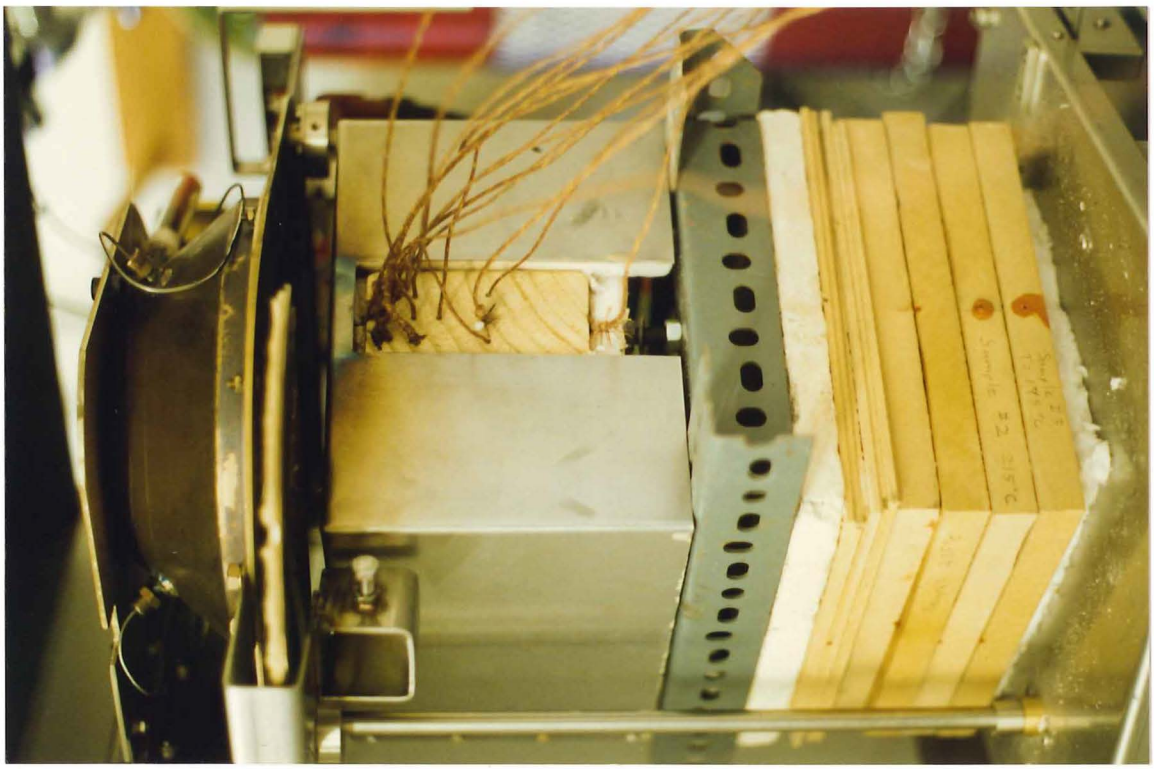


Figure 5.7.1: Experimental set-up in the cone-calorimeter

The specimen holder was made of steel and insulated with 20 mm of a ceramic material. The exposed area was 160*160 mm. The construction drawings of the holder are attached in Appendix A.

A problem with the increased exposed area compared to the normal specimen holder, which has an exposed area of 100*100 mm, is the decreased radiation at the edges of the specimen. The radiation will not be uniform over the surface. Paul (1994) investigated the heat flux versus the radius for the conical radiator. The heat flux over the exposed area of the specimen holder, at a distance of 25 mm from the conical radiator and at a heat flux from the conical radiator of 50 kW/m^2, is shown in Appendix B.

The exposed length of the wood stud receives a uniformed heat flux of 50 kW/m^2 (see Appendix B. This was confirmed in the experiments since the observed charring was uniform over the length of the wood stud. The corners of the gypsum board have less heat flux.

The gypsum boards had a tendency to bend over the wood stud after some time in the experiments. The gypsum boards were supported in the corners by nails in the specimen holder to avoid these effects.

The unexposed side of the specimen holder was supported by a construction that was made to allow some natural convective cooling on the unexposed side (see figure 5.7.1).

5.8 Heating conditions

The specimens were exposed to radiant heat from the conical radiatior at 25 kW/m^2, 50 kW/m^2, 75 kW/m^2 and 100 kW/m^2.

The heat flux of the conical radiator is set manually by changing the temperature of the conical element. The temperature settings were calibrated with a heat flux gauge before the experiments were conducted. Table 5.8.1 shows the required temperature of the conical radiator to reach a certain heat flux based on measurement by a heat flux gauge.

Table 5.8.1: Relation between temperature and heat flux of the conical radiator

Temperature (°C)	Heat flux (kW/m^2)
625	25
790	50
900	75
975	100

5.9 Specimen removal from cone calorimeter

The specimens were rapidly removed from the cone calorimeter and the specimen holder and sprayed with water from a normal fire hose reel at the conclusion of the exposure period.

5.10 Testing sequence

The test sequence is detailed in table 5.10.1.

Table 5.10.1: Test sequence

Test	Stud size (mm)	Board thickness (mm)	Board type	Insulation type	Heat flux (kW/m^2)	Duration (min)	Joint distance (mm)
1	45*90	12.5	Fyreline		25	90	
2	45*90	12.5	Fyreline		50	90	
3	45*90	12.5	Fyreline		100	30	
4	45*90	12.5	Fyreline		75	90	
5	45*90	12.5	Fyreline	Glass wool	50	90	
6	45*90	12.5	Fyreline	Natural wool	50	60	
7	45*90	9.5	Fyreline		50	90	
8	45*90	16	Fyreline		50	90	
9	45*90	19	Fyreline		50	60	
10	45*90	2*12.5	Fyreline		50	60	
11	45*90	9.5	Standard		50	60	
12	45*90	12.5	Standard		50	60	
13	35*90	12.5	Fyreline		50	60	
14	45*90	12.5	Fyreline		50	60	7
15	45*90	12.5	Fyreline		50	42	20
16	45*90	12.5	Fyreline		50	60	13

5.11 Recording of data

The thermocouple data was recorded at 15 second intervals. Recording was terminated after completion of the test exposure. The thermocouple data is presented for each experiment in Appendix C.

Visual observations were recorded in a notebook assigned for the experiments.

5.12 Ambient environment

Atmospheric conditions were measured with a portable digital relative humidity and temperature measurement device. The atmospheric conditions during each of the experiments are displayed in table 5.12.1.

Table 5.12.1: Relative humidity and ambient temperature

Test Number	Relative Humidity (%)	Ambient temperature (°C)
1	34	18
2	30	21
3	34	18
4	54	13
5	47	15
6	50	17
7	65	15
8	68	17
9	60	17
10	48	16
11	56	17
12	44	18
13	60	17
14	60	18
15	66	18
16	50	15

5.13 Specimen examination during testing

The behaviour of the light timber frame constructions were observed during the tests. The following bullet-points describe the general behaviour of the specimens during all tests:

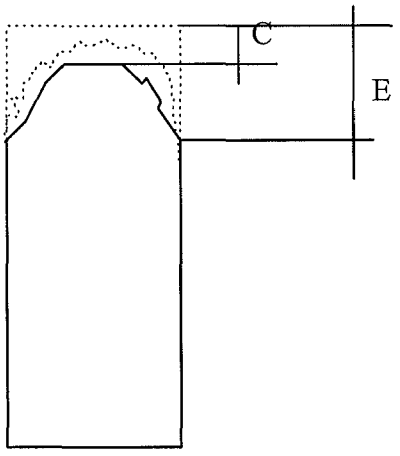
1. The surface lining paper ignited and burned off within one minute from the start of the test.
2. The onset of char was observed when pyrolys gases started to rise through small leakage openings in the specimen holder.
3. The wood stud shrank and created a small gap (1-5 mm) between the exposed gypsum board and the wood stud after a long exposure time.
4. The ongoing heating of the gypsum board created small cracks in the board, and the board started to bend slightly over the wood stud as the gypsum board slowly lost its structural resistance.

5.14 Specimen examination after testing

After testing, each wood stud was cross-cut at its mid-point and char depths were measured. The edge char depth and the centre char depths are given table 5.14.1. The definition of the measured edge char depth and the measured centre char depth is given in figure 5.14.1. The residual sections were photographed and are presented in Appendix D.

Table 5.14.1: Char depths in the wood studs

Test number	Edge char depth (mm)	Centre char depth (mm)
1	11	11
2	36	28
3	16	11
4	20	20
5	60	50
6	30	20
7	47	33
8	20	20
9	1	2
10	11	12
11	23	23
12	27	20
13	30	25
14	30	30
15	30	30
16	30	30



C = Centre char depth

E = Edge char depth

Figure 5.14.1: Definition of the measured edge char depth and the measured centre char depth.

Chapter 6 Results and discussion of test results

6.1 Char depth from thermocouple data

6.1.1 Results

The temperature of the char/solid wood interface was assumed to be 300 °C. The 300 °C isotherm was plotted for each stud for the edge thermocouples and the centreline thermocouples.

Figure 5.3.1 displays the edge and centreline thermocouple placement. The char depth and charring rate at the centre and the edges mentioned in chapter 6 are calculated from these thermocouples. Hence, the calculated edge char depth differs from the edge char depth measured and tabled in paragraph 5.14.

Figure 6.1.1.1 shows the 300 °C isotherm for test 2, where a 45*90 mm wood stud was protected with a layer of 12.5 mm Fyreline on each side and exposed to a radiation of 50 kW/m^2.

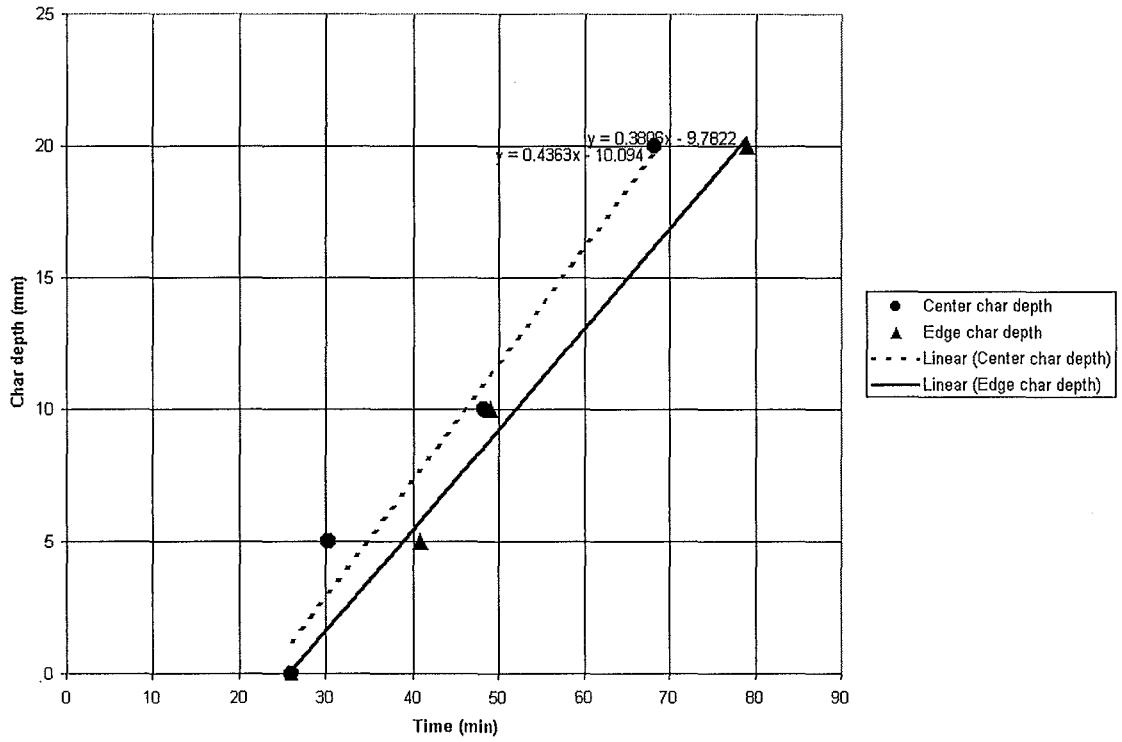


Figure 6.1.1.1: Char depth versus time at the edge and the centreline for test 2 (12.5 mm).

The lines in figure 6.1.1.1 are linear regressions through the data plots. The charring rate is less at the edges that at the centre since the line for the centre charring rate is steeper than the line for the edge charring rate.

The char depth versus time was also plotted for test 7, where the wood stud was protected with one layer of 9.5 mm Fyreline, and test 8, where one layer of 16 mm of Fyreline was used for protection. The comparisons are presented in figure 6.1.1.2 and figure 6.1.1.3.

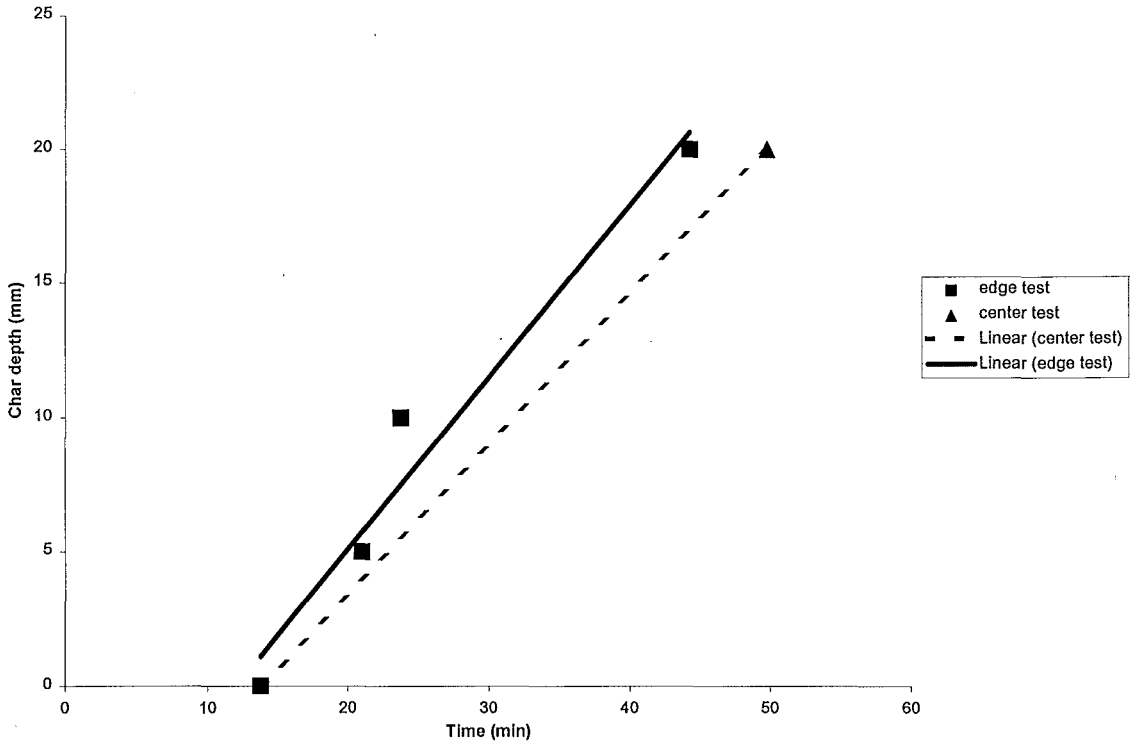


Figure 6.1.1.2: Char depth versus time at the edges and the centreline for test 7 (9.5 mm).

The lines in figure 6.1.1.2 are linear regressions through the data plots. The charring rate is higher at the edges than at the centre since the line for the edge charring rate is steeper than the line for the centre charring rate.

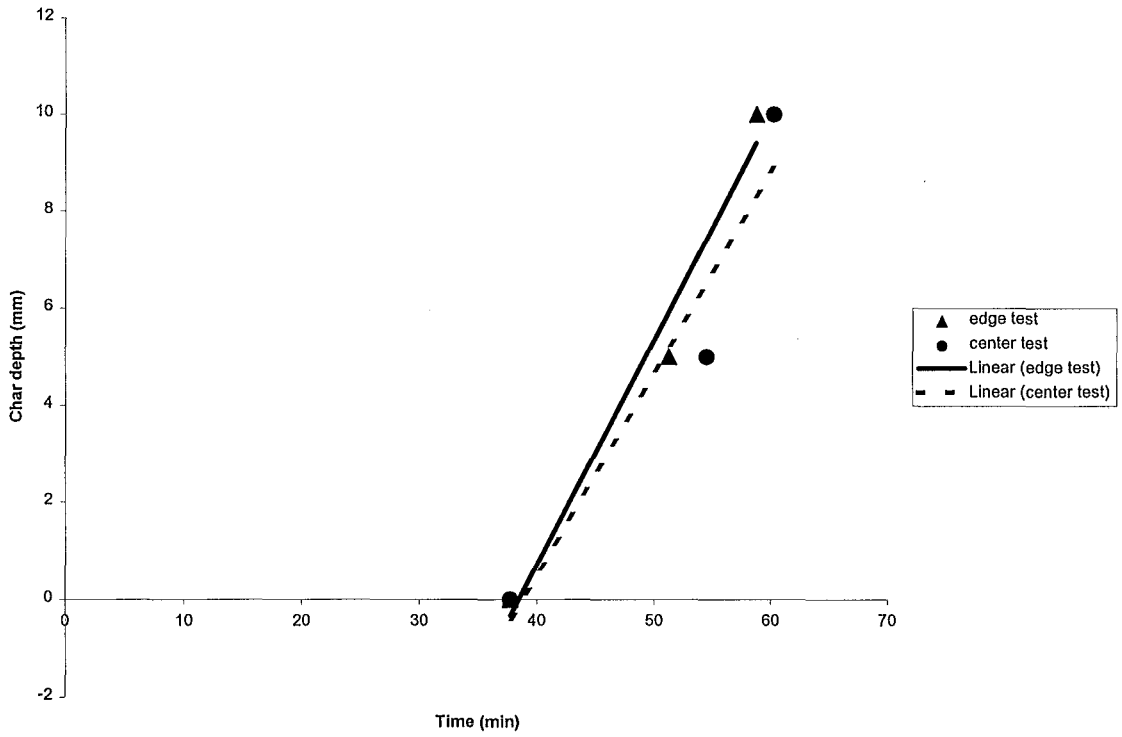


Figure 6.1.1.3: Char depth versus time at the edges and the centreline for test 8 (16 mm).

The lines in figure 6.1.1.3 are linear regressions through the data plots. The charring rate is higher at the edges, as for figure 6.1.1.2, since the line for the edge charring rate is steeper than the line for the centre charring rate.

6.1.2 Comparison with full-scale test results

The bench-scale data from test 2 (12.5 mm) is compared with full-scale data from tests at BRANZ in figure 6.1.2.1 and 6.1.2.2. The data is extracted from Thomas (1997).

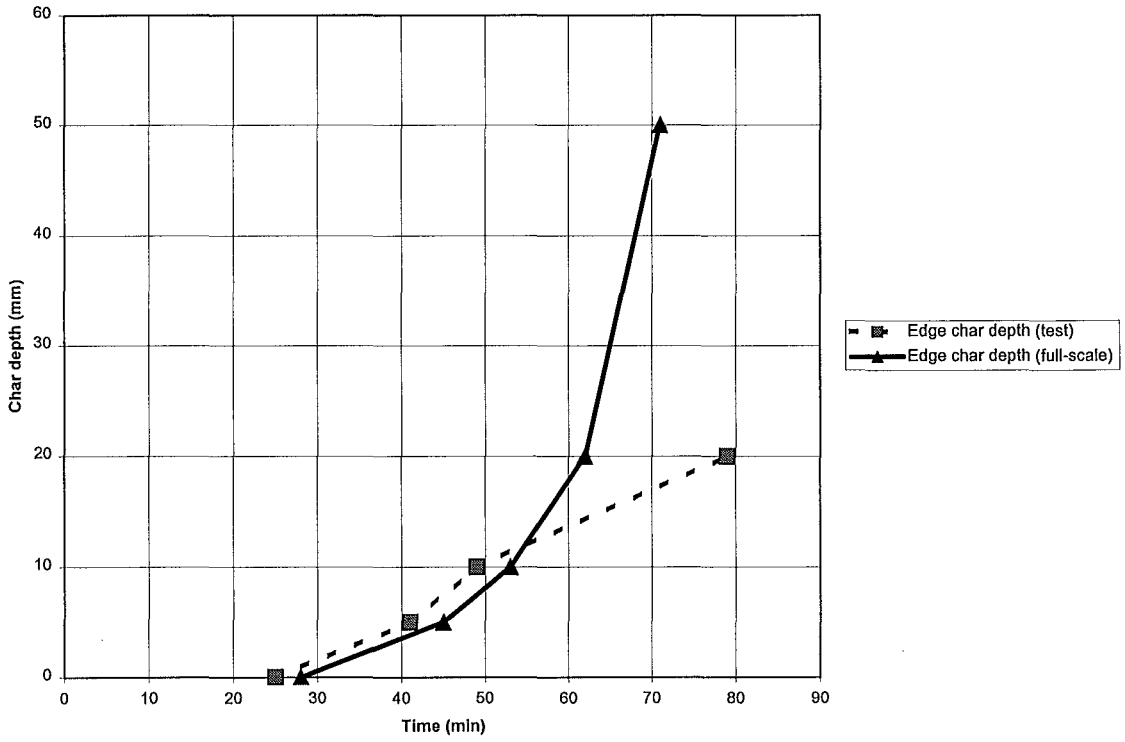


Figure 6.1.2.1: Edge char depth for test 2 (12.5 mm) and similar structure in a full-scale test.

Figure 6.1.2.1 shows that the onset of charring at the edges occurred 3 minutes earlier in the cone calorimeter test than in the furnace test. The charring rates are fairly similar in the cone test and in the furnace test during the first 25 to 55 minutes since the lines are approximately equally steep in this region. The charring rate in the furnace test started to increase exponentially after this point, but the charring rate in the cone calorimeter test remained constant.

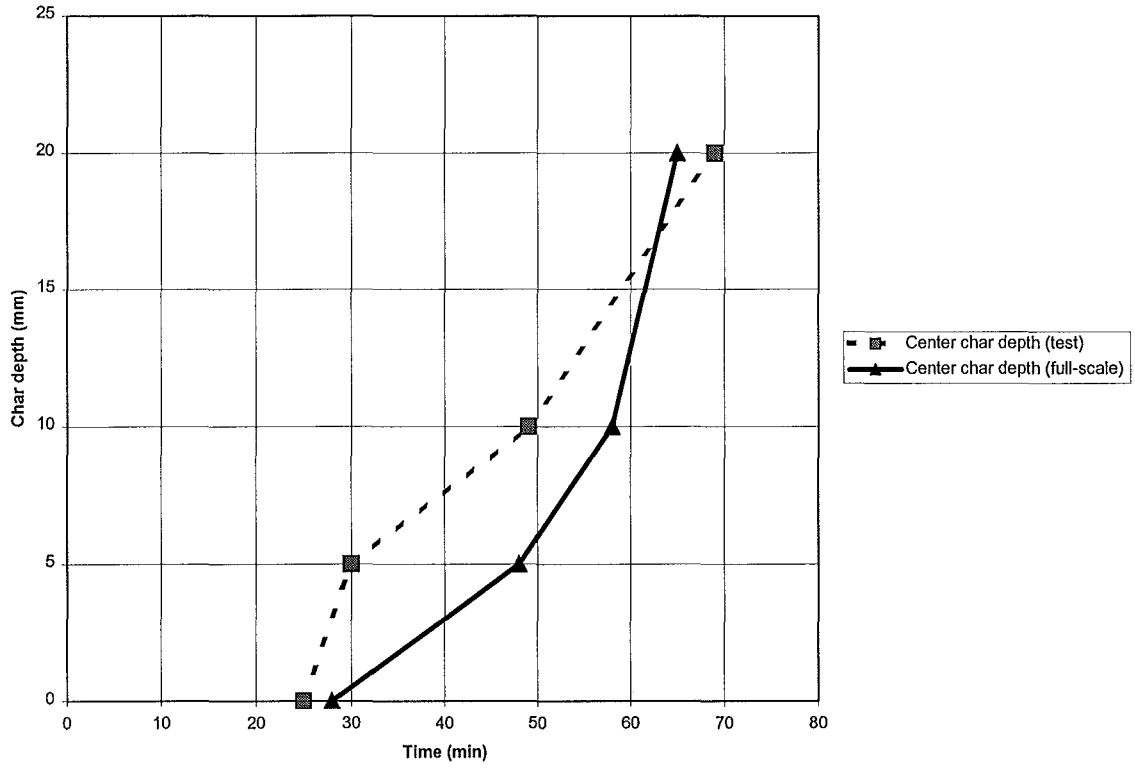


Figure 6.1.2.2: Centre char depth for test 2 (12.5 mm) and similar structure in full-scale test.

It can be seen from figure 6.1.2.2, as in figure 6.1.2.1, that the charring rate was similar during the first 25 to 60 minutes in the bench-scale test. The charring rate in the full-scale test increased exponentially and became larger than the charring rate in the cone calorimeter test after 65 minutes.

The same comparison was done for test 7 (9.5 mm) and test 8 (16 mm). The comparisons are presented in figure 6.1.2.3, figure 6.1.2.4 and figure 6.1.2.5.

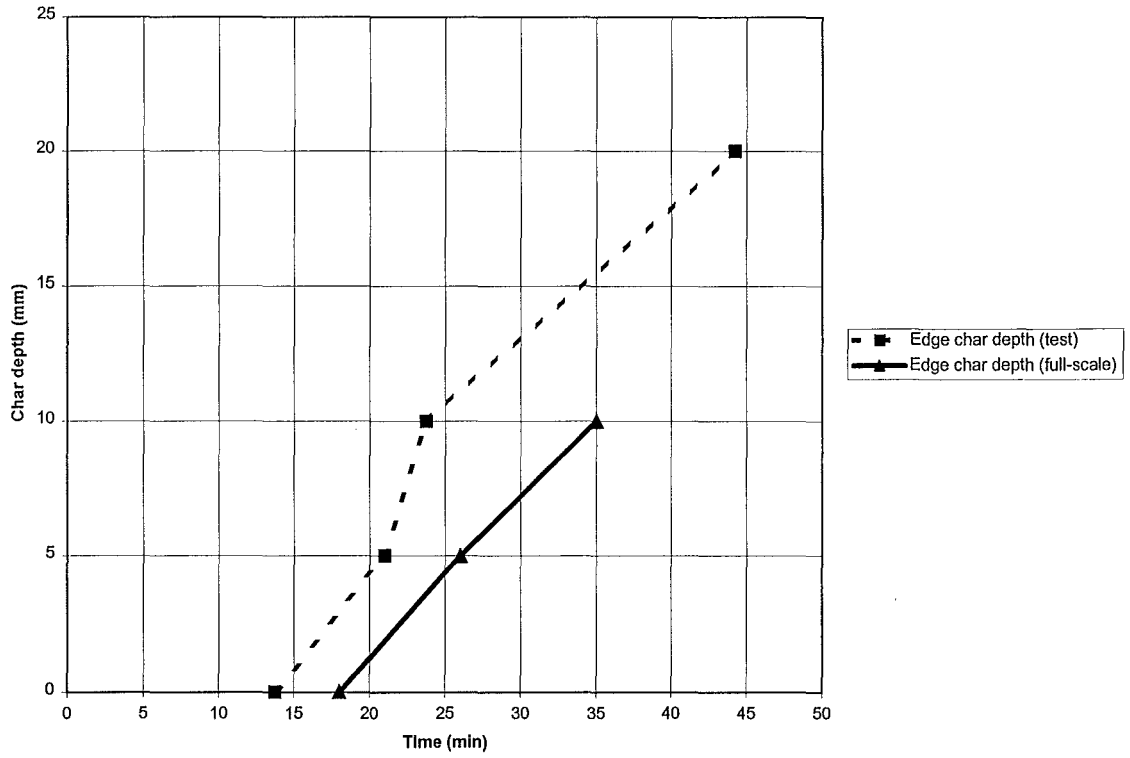


Figure 6.1.2.3: Edge char depth for test 7 (9.5 mm) and similar structure in a full-scale test.

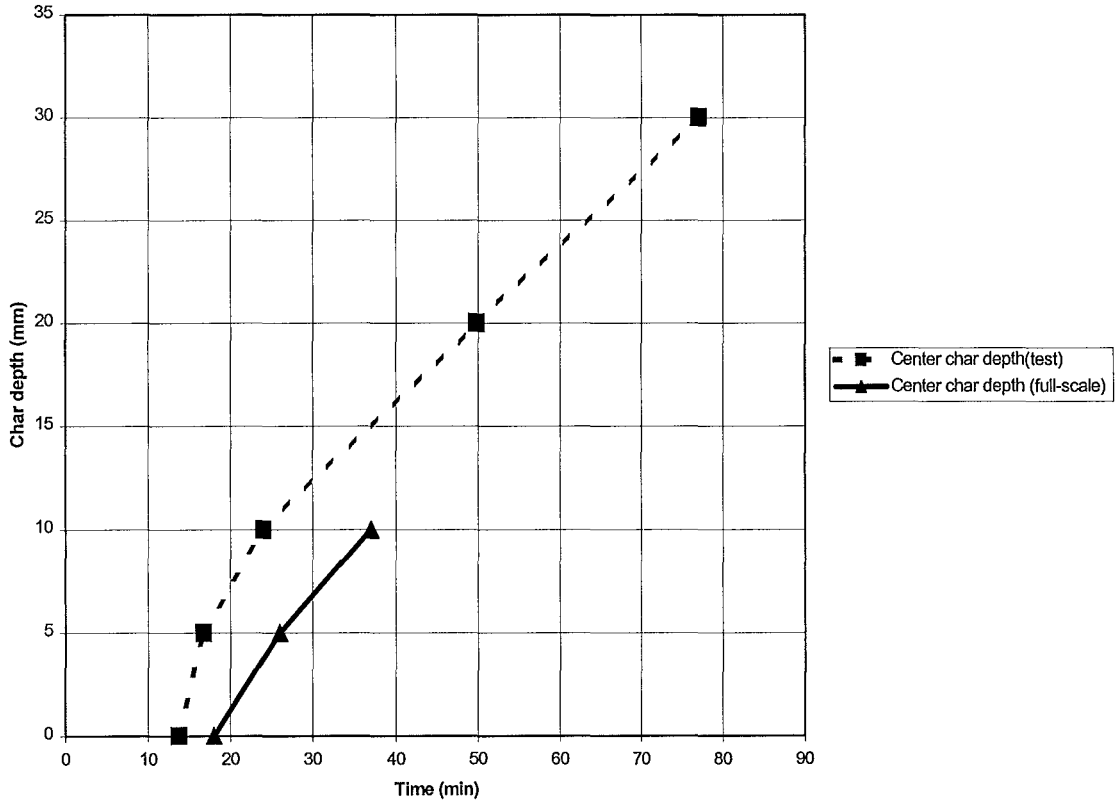


Figure 6.1.2.4: Centre char depth for test 7 (9.5 mm) and similar structure in full-scale test.

The onset of charring, when the wood stud was protected with a 9.5 mm Fyreline board (see figure 6.1.2.3 and 6.1.2.4), occurred approximately 4 minutes earlier in the bench-scale test than in the full-scale test.

The charring rate was similar in both the furnace test and the cone calorimeter test since the lines are equally steep for the data that was analysed (see figure 6.1.2.3 and 6.1.2.4).

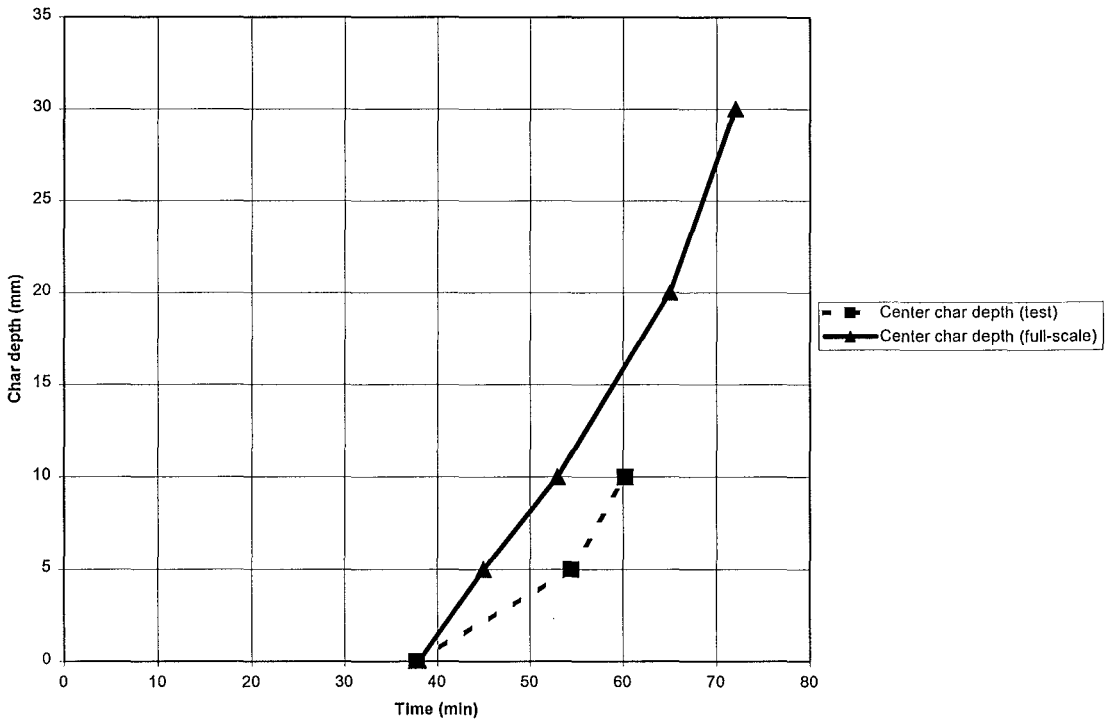


Fig 6.1.2.5: Centre char depth for test 8 (16 mm) and similar structure in full-scale test.

Figure 6.1.2.5 shows that the onset of charring in the cone calorimeter, when the wood stud is protected with a 16 mm Fyreline board, occurred at the same time as in the furnace test. The charring rate, however, is slightly more severe in the full-scale test than in the bench-scale test during the first 55 minutes because the line for the furnace test is steeper than the line for the cone calorimeter experiment.

6.1.3 Discussion

The onset of char occurred earlier in the experiments than in the furnace tests except for the 16 mm gypsum board, where the time to onset of char was similar for both the bench-scale test and furnace test. Hence, a constant heat flux of 50 kW/m^2 is slightly too high to simulate the onset of char for the thinner boards.

The relationships between char depth versus time in the bench-scale tests, were linear. The charring rate is dependent on the heat flux. The radiant heat from the

conical radiator was constant during all tests. This is why the charring rate was constant for each tested wall assembly in the bench-scale experiments. The charring rate in the furnace tests increased with the time, since the heat flux from the flames in the furnace tests increased with the time.

No larger difference between the 300 °C isotherm for the edge thermocouples and the centre thermocouples was found. However, the measured char depth (see table 5.13.1) shows that the charring at the edges was more severe than at the centre. It is likely that a large difference between the 300 °C isotherm for the edge thermocouples and the centre thermocouples could have been observed if the edge thermocouples were placed closer to the side of the wood stud.

Another way of comparing the cone calorimeter charring rates and the full-scale charring rates can be obtained by deriving the ratio between the char depths in the cone calorimeter and the furnace. This relation is plotted in figure 6.1.2.1 with one reading taken every five minutes for test 2 (12.5 mm), 7 (9.5 mm) and 8 (16 mm). Figure 6.1.2.1 also displays Lazaros et al. (1996) cone calorimeter tests results for an ordinary 13 mm gypsum board and a 16 mm Gyproc F gypsum board, which had improved core cohesion at high temperature.

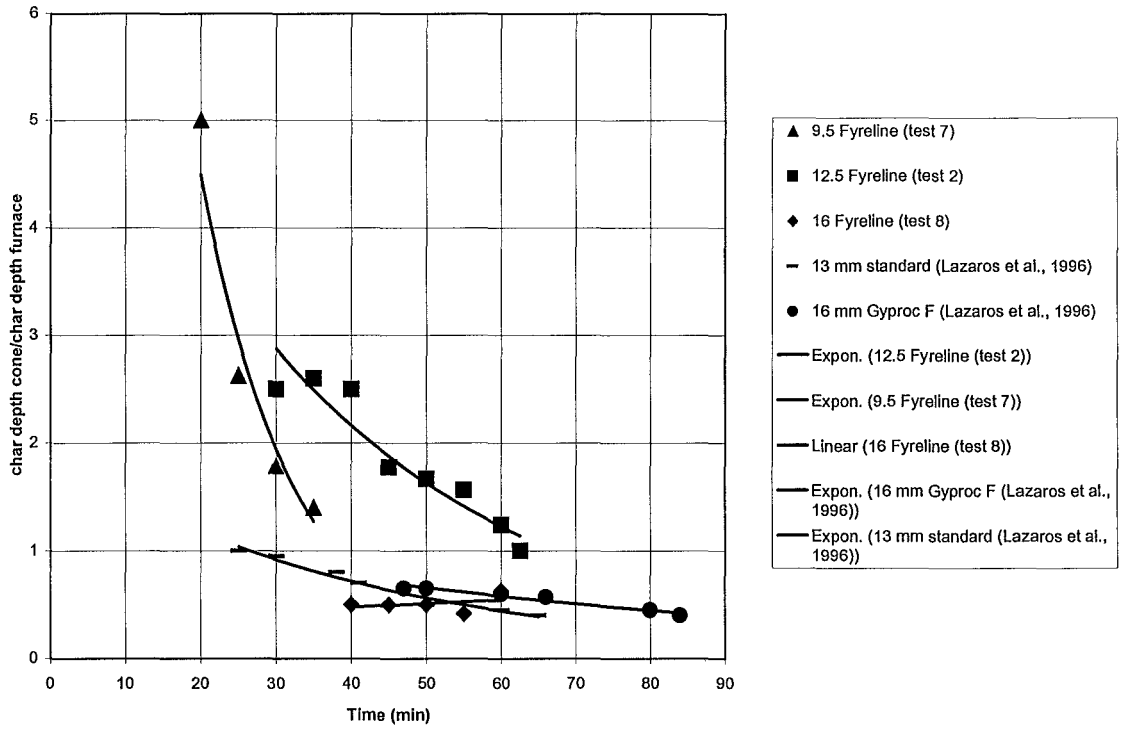


Figure 6.1.2.1: Ratio between charring depth in the cone calorimeter and the furnace.

Different regression models were fitted and dissimilar equations derived. The relationship between char depth in the cone calorimeter and the char depth in the furnace test, for a wall assembly protected with a 9.5 mm Fyreline on each side, can be described with the following equation:

$$d_{char,\,cone} / d_{char,\,furn} = 22\, e^{-0.079\, t} \qquad (6.1.2.1)$$

where

t is the time (minutes) and

d is the char depth (mm).

The equation, when a 12.5 mm Fyreline is used for protection, can be illustrated as:

$$d_{char,\,cone} / d_{char,\,furn} = 5.9\, e^{-0.025\, t} \qquad (6.1.2.2)$$

The relationship for a 16 mm Fyreline is linear and is displayed below.

$$d_{char,\,cone} / d_{char,\,furn} = 0.0033\,t + 0.34 \qquad (6.1.2.3)$$

The following relationship was derived from Lazaros et al. (1996) data for a wall assembly that was protected with a 16 mm Gyproc F gypsum board:

$$d_{char,\,cone} / d_{char,\,furn} = 1.3\,e^{-0.013\,t} \qquad (6.1.2.5)$$

The formula determined from Lazaros et al. data, for a 13 mm standard gypsum board, can be written as:

$$d_{char,\,cone} / d_{char,\,furn} = 1.9\,e^{-0.024\,t} \qquad (6.1.2.4)$$

Lazaros et al. believed, however, that the ratio was fairly independent of the board type and recommended the following formula in their paper:

$$d_{char,\,cone} / d_{char,\,furn} = 1.4\,e^{-0.015\,t} \qquad (6.1.2.5)$$

Figure 6.1.2.1 shows the ratio between the char depth in the cone calorimeter and the char depth in the furnace was dependent on board thickness and board type. Lazaros et al. range of experiments were too few to discover this conditional relation.

Following the previous discussion it was concluded that it is not possible to predict the furnace behaviour directly from the data from the cone calorimeter for at least three reasons:

(i) The charring rate normally observed in furnace tests was not achieved in the bench-scale tests.

(ii)The ratio between the centre char depth in the cone and the centre char depth in the furnace was strongly dependent on board thickness and board type.

(iii)The onset of char occurred earlier for the 9.5 mm and 12.5 mm Fyreline gypsum boards in the cone calorimeter tests than in the furnace tests.

There are two possible solutions to this problem, which are presented below.

- The heat flux from the conical radiator can be set to simulate the time dependent heat flux generated in the furnace test. This would create a testing environment closer to the one in the furnace test, and correlations such as equation 6.1.2.1 to 6.1.2.5 would not be necessary.
- The thermocouple data can be extracted from the experiments and integrated in a thermal computer model to correlate the thermal properties. The thermal computer model can, after calibration, be used to simulate the full-scale behaviour.

6.2 Effects of different radiation heat flux

6.2.1 Results

It was of interest to investigate the char characteristics at different incident radiation from the conical radiator. The 300 °C isotherm was plotted for the edge and centreline thermocouple data at a heat flux of 25, 50, 75 and 100 kW/m^2 as shown in figure 6.2.1.1 and figure 6.2.1.2.

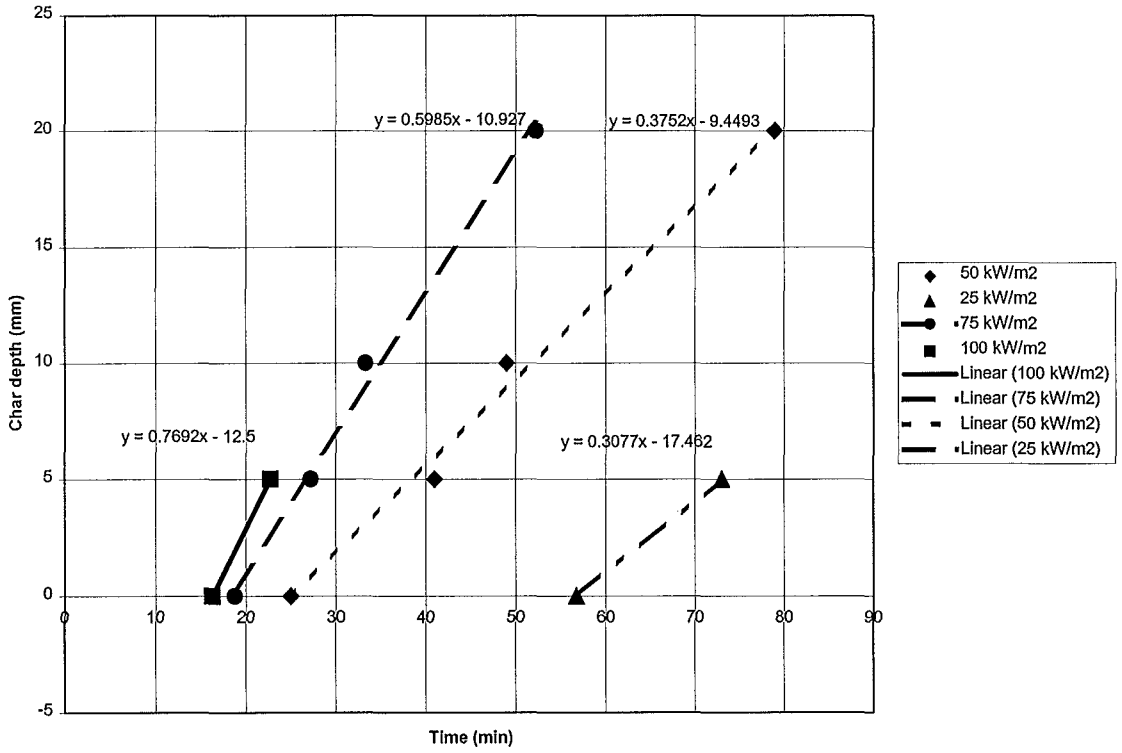


Figure 6.2.1.1: Edge charring rate at different radiation levels for a wood stud protected with a 12.5 mm Fyreline on each side.

Linear regression models were fitted and the resulting equations are shown in figure 6.2.1.1. Figure 6.2.1.1 shows that the charring rate at the edges of the wood stud was proportional to the radiation heat flux from the conical radiatior, since the lines gradually become steeper with the heat flux. The start of charring is also clearly dependent on the heat flux.

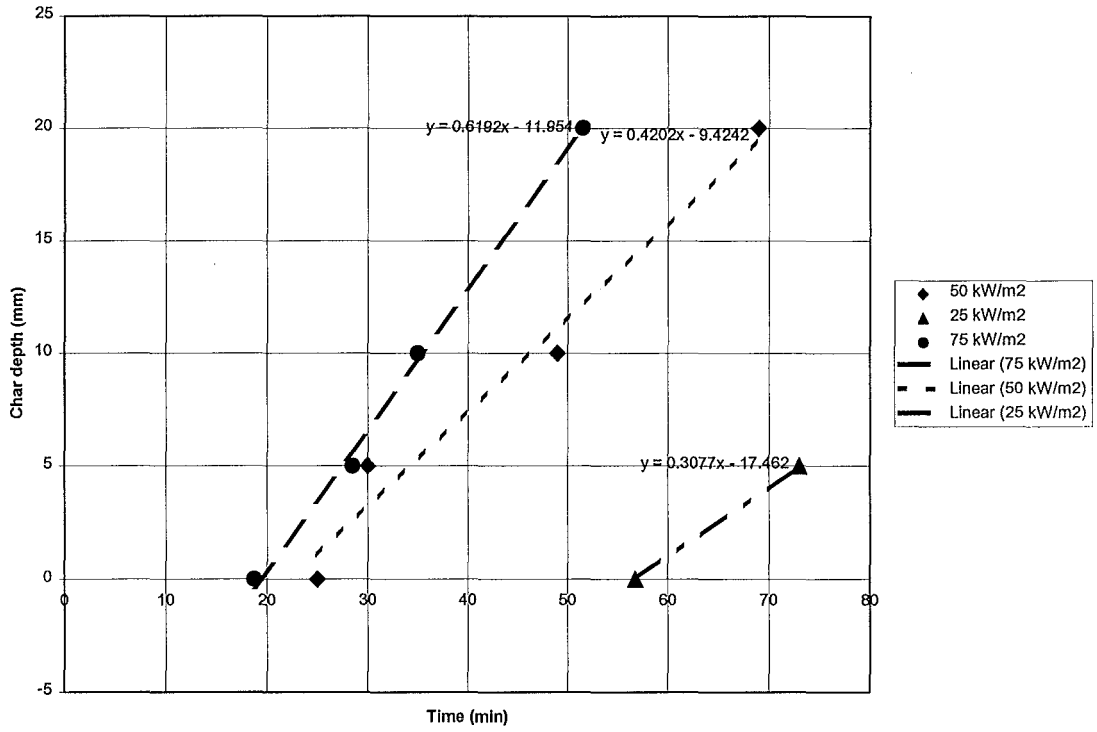


Figure 6.2.1.2: Centre charring rate at different radiation levels for a wood stud protected with a 12.5 mm Fyreline on each side.

Linear regression models were fitted and the relationships are displayed in figure 6.2.1.2. Figure 6.2.1.2 shows that the onset of charring was different for the four radiation levels. The charring rate in the centre was dependent on the heat flux from the cone calorimeter, as concluded also for the charring rate at the edges in figure 6.2.1.1.

6.2.2 Discussion

The charring rate increases with the heat flux from the conical radiator. This behaviour occurs since the heat flux from the gypsum board and the cavity increases with the increasing heat flux from the conical radiator. Hence, it can be possible to achieve the high charring rates discovered in full-scale test, which could not be detected at a heat flux of 50 kW/m^2 from the conical radiator, if a higher constant

heat flux from the cone calorimeter is used. This will regrettably create the following additional problems:

- The high constant heat flux from the conical radiator will cause the gypsum board to bend over the wood stud and create cracks in the gypsum board. The specimen would not be able to be exposed to the high heat flux during the normal exposure time since the gypsum board would not be in place.

- The time to the start of charring in the bench-scale tests, when a heat flux of 50 kW/m^2 was used, occurred earlier than the time to the start of charring in the furnace test (see figure 6.1.2.1). The onset of char will be even more overpredicted if a higher constant heat flux is used.

Consequently, it is not appropriate to use a constant radiation level higher than 50 kW/m^2 in bench-scale tests to simulate furnace tests.

6.3 Effects of different gypsum plasterboard on char characteristics

6.3.1 Results

Tests 7 to 12 were conducted to investigate the effect of different types of gypsum plasterboard on the charring rate. Fyreline gypsum board and standard GIB boards of different thickness were tested in the cone calorimeter with a constant heat flux of 50 kW/m^2. Figure 6.3.1.1 shows the centre char depth versus time for different thickness of Fyreline boards.

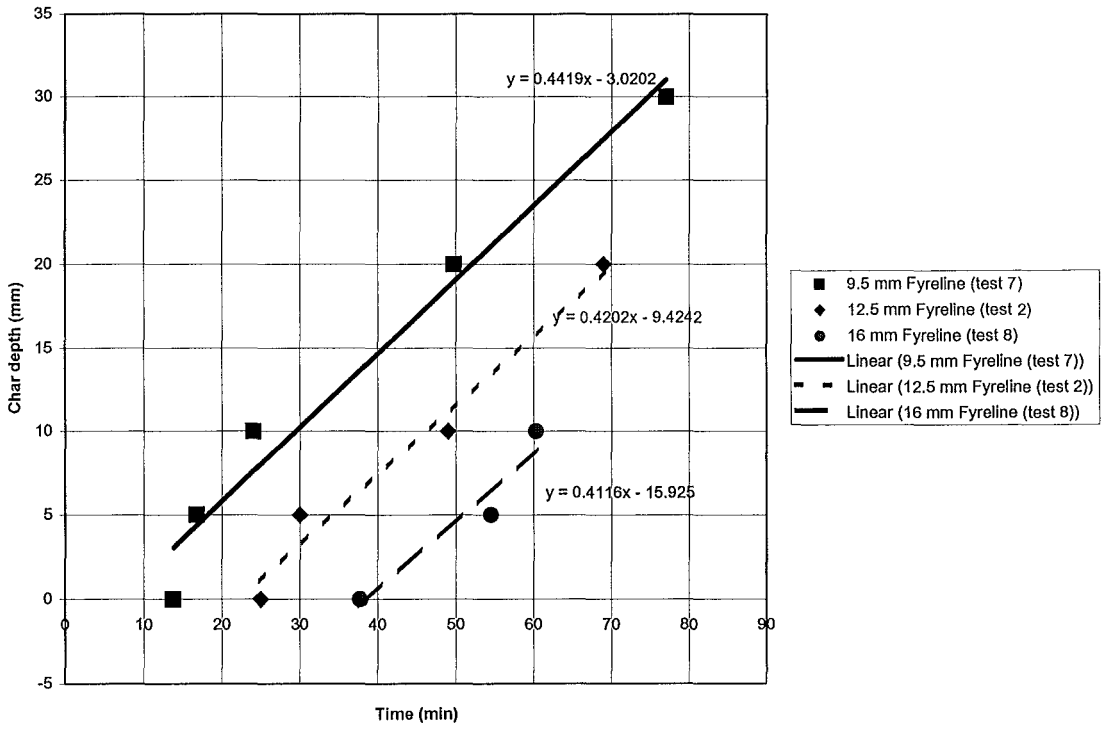


Figure 6.3.1.1: Centre char depths versus time for different thickness of Fyreline gypsum boards.

Linear regression models were fitted and the empirical equations are presented in figure 6.3.1.1 and in the text below. Figure 6.3.1.1 shows that the charring rate was approximately not dependent on the thickness of the Fyreline boards since the lines are parallel. The char depth can be approximately described as:

$$d_{char,\ cone} = 0.4\ t \qquad (6.3.1.1)$$

where

t is the time (minutes) and

$d_{char,\ cone}$ the char depth in the wood stud (mm).

This was also researched for different thicknesses of standard GIB boards. Figure 6.3.1.2 shows the char depth versus time for different thicknesses of standard GIB boards.

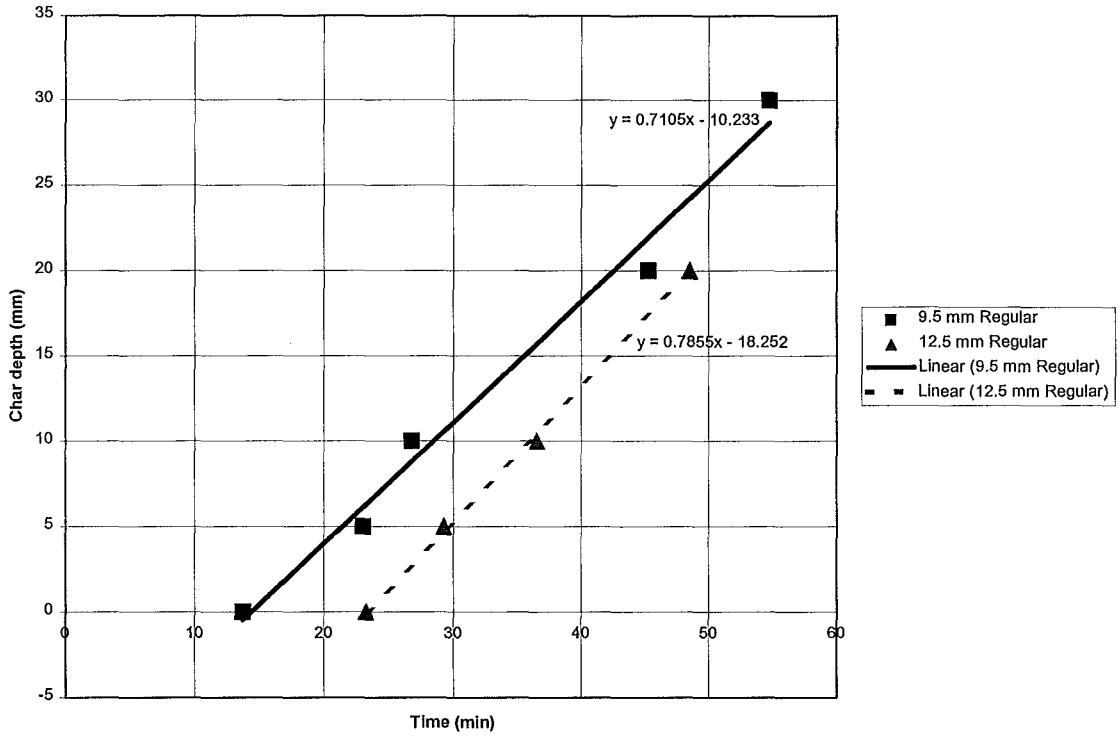


Figure 6.3.1.2: Char depth versus time for different thicknesses of standard GIB gypsum plasterboards.

Linear regression models were fitted and are displayed in figure 6.3.1.2 and in the text. It can be concluded from figure 6.3.1.2 that the charring rate was not dependent on the thickness of the boards for the standard GIB gypsum boards because the lines are parallel. The approximate relationship for char depth versus time is shown below.

$$d_{char,\ cone} = 0.75\ t \qquad (6.3.1.2)$$

A wood stud protected with two 12.5 mm Fyreline on each side was tested to investigate the charring rate for this type of construction. The results are shown in figure 6.3.1.3.

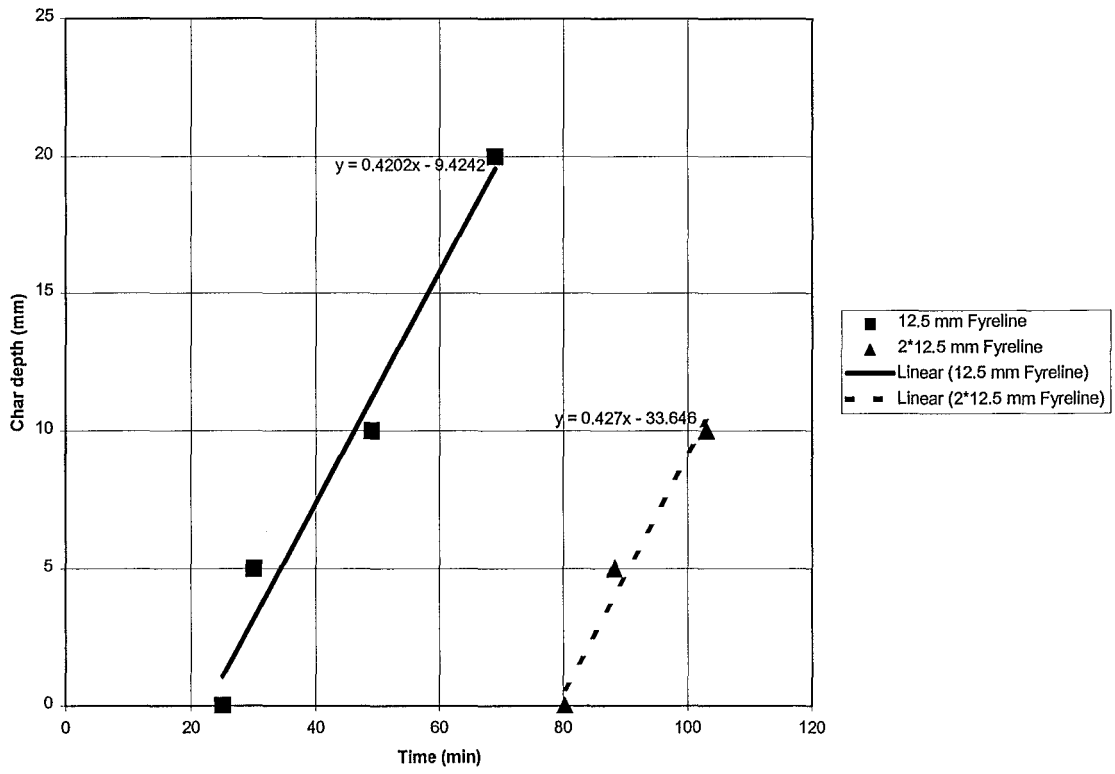


Figure 6.3.1.3: Char depth versus time for different Fyreline board constructions.

Figure 6.3.1.3 shows that the double gypsum board construction had the same charring rate as the other tested Fyreline boards.

The start of charring versus the board thickness is shown in figure 6.3.1.4. The point for the 25 mm thick gypsum board are the result from a cone calorimeter test where a wood stud was protected with two layers of 12.5 mm Fyreline on each side.

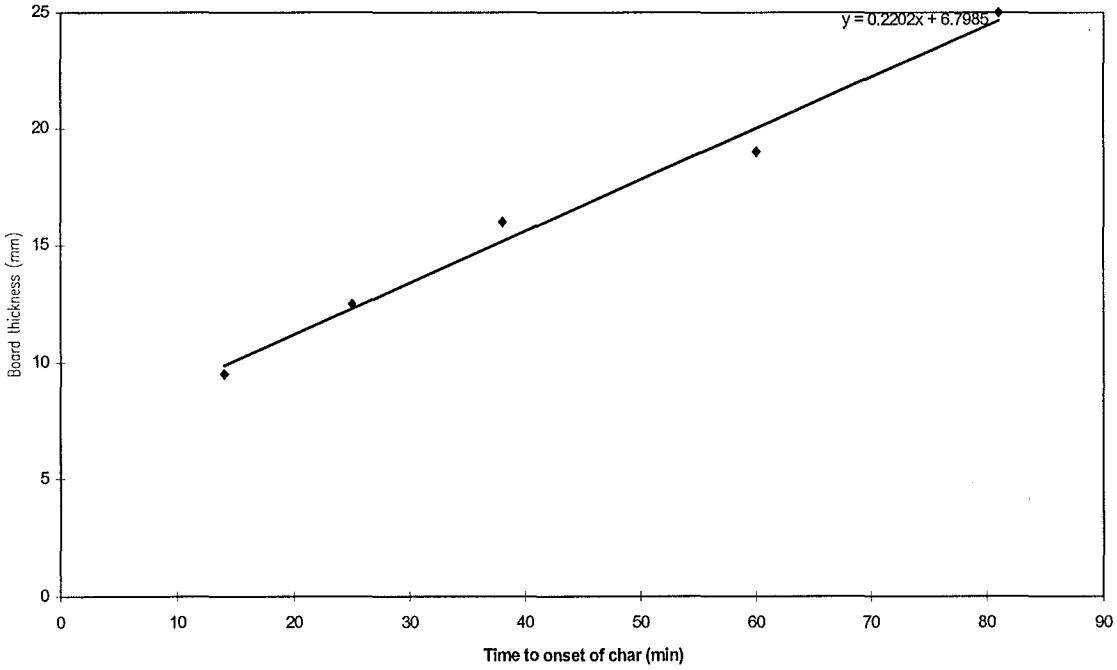


Figure 6.3.1.4: Board thickness versus time to onset of charring for Fyreline gypsum boards.

A linear regression equation was derived from figure 6.3.1.4 and is presented in the text. The relationship between the board (Fyreline gypsum boards) thickness and the time to onset of charring is clearly linear and can be expressed as:

$$d = 0.22\ t_{onset} + 6.8 \qquad (6.3.1.3)$$

where

d is the board thickness (mm) and

t_{onset} is the time (min) to onset of charring.

6.3.2 Discussion

The charring rates for wood studs protected with Fyreline boards, tested in this study, were 0.41 - 0.44 mm/min. The charring rates for wood studs, protected with standard GIB boards, were 0.71 - 0.79 mm/min. The charring rates were apparently strongly

dependent on the board type since the difference between the charring rate for Fyreline gypsum boards and GIB standard boards was large. The charring rate was clearly not greatly dependent on board thickness since the differences between the charring rates for the different thicknesses of boards were small. The mechanism behind this is discussed further below.

The conduction heat transfer behind the charring rates in the cone calorimeter tests can be approximated as a steady state phenomenon. Hence, the variables in these tests were the thermal conductivity of the gypsum board and the boards thickness. The small changes in the thickness of the boards did not have a major effect on the conductive heat transfer. However, the thermal conductivity contrasted more between the board types. This is why the charring rate is dissimilar for the different types of boards, but fairly constant for the board thickness.

The relationship between the board thickness and the time to onset of charring was linear. The heat transfer theory behind this is debated below.

300 °C has been assigned as the temperature at the char/solid wood interface. The onset of char was assumed to occur when the thermocouple between the gypsum board and the wood stud read a temperature of 300 °C. The temperature difference would be proportional to the board thickness if the heat flux, thermal conductivity, moisture content, specific heat, and density are assumed to be constant for each board type.

6.4 Effects of insulation on char characteristic

6.4.1 Results

Two tests were performed, where one cavity was insulated with glass wool and the other with sheep wool (natural wool), which is a new product on the New Zealand market. The wood stud was protected with a 12.5 mm Fyreline and exposed to a

radiant heat from the conical radiator of 50 kW/m^2. Figure 6.4.1.1 shows the centreline char depth for a test with an uninsulated cavity and a test with a cavity insulated with glass wool.

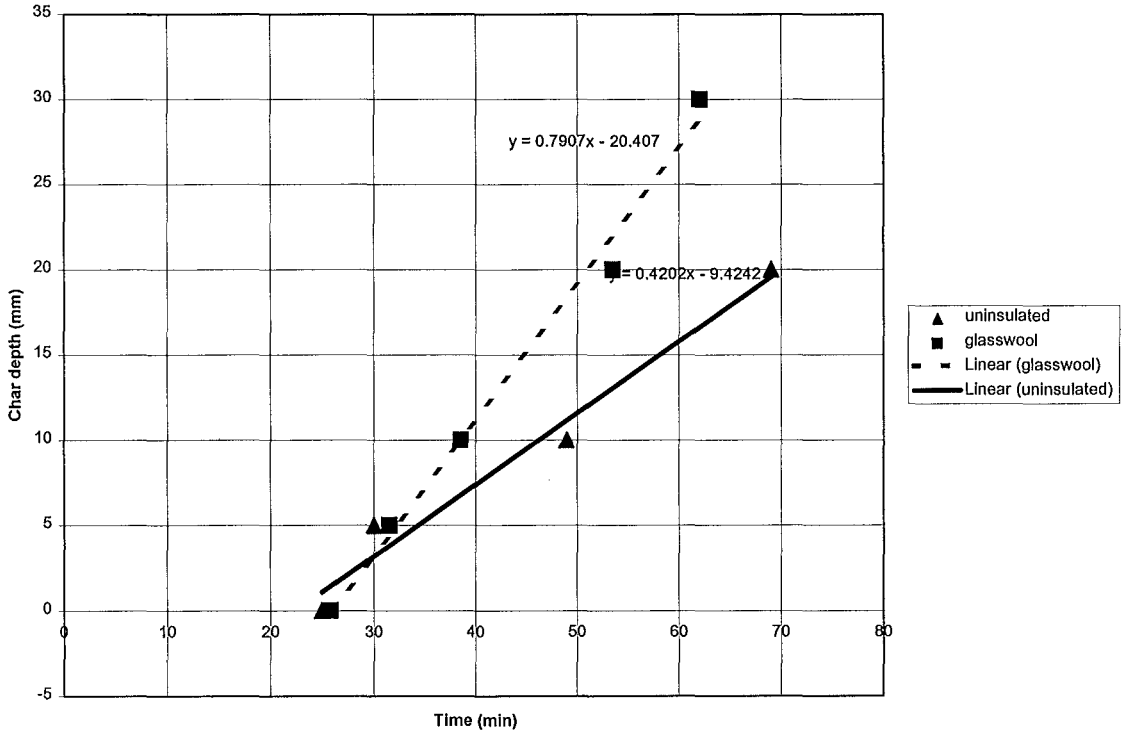


Figure 6.4.1.1: Centre char depth versus time for an uninsulated cavity and a glass wool insulated cavity.

Linear regression models were fitted and are displayed in figure 6.4.1.1. Figure 6.4.1.1 concludes that the onset of charring occurs at the same time for both the uninsulated assembly and the insulated assembly.

The charring rate is more severe in the insulated case, since the line is steeper for this test.

The glass wool was examined after the test and photographed. The picture is shown in figure 6.4.1.2.

Figure 6.4.1.2: Glasswool after the experiment.

The maximum temperature measured in the cavity was 590 °C. This cavity temperature did not cause the glasswool to melt or lost its shape and structural stability. This was concluded from the specimen examination after the test.

The effects of different insulation material on the char characteristics are compared in figure 6.4.1.3.

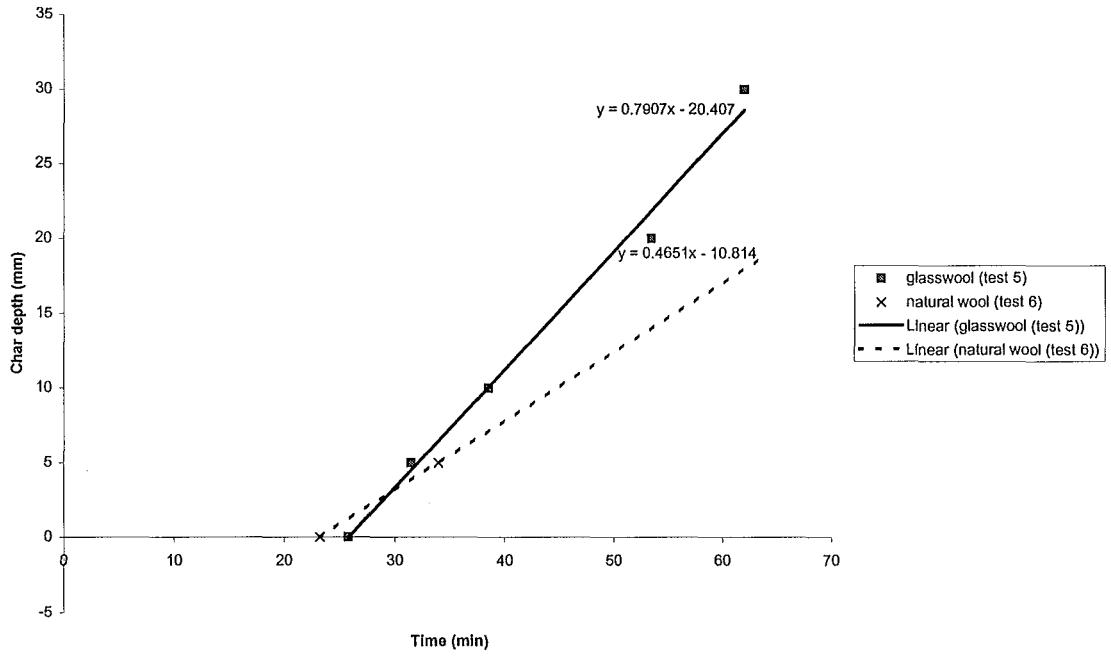


Figure 6.4.1.3: Centre char depth versus time for a cavity insulated with glass wool and a cavity insulated with natural wool.

Linear regression models were fitted and are displayed in figure 6.4.1.3. It can be seen from figure 6.4.1.3 that onset of char occurred earlier in the test, where natural wool was used for insulation, than in the test where glass wool was used for insulation. However, the charring rate was higher for the glass wool experiment than for the natural wool test, since the line is steeper for the glass wool test.

If the linear regression model for the uninsulated cavity (see figure 6.4.1.1) is compared with the linear regression model for the cavity insulated with natural wool (see figure 6.4.1.3), it is shown that the charring rate is similar in both tests.

The natural wool was examined after the test and photographed. The photo is shown in figure 6.4.1.4.

Figure 6.4.1.4: Natural (sheep) wool after the test.

The natural wool has severely charred during the test, which can be seen in figure 6.4.1.1. Almost half of the natural wool had turned into char.

6.4.2 Discussion

The centre charring rate in the wood stud, where the cavity was insulated with glass wool, was more severe than when the cavity was not insulated. However, the insulation protected the sides of the wood studs and the edge charring was therefore not so severe as when the cavity was not insulated.

The charring rate for the natural wool (sheep wool) was similar to the charring rate for the uninsulated test. The natural wool charred and shrank during the test, which created a cavity. The cavity had a large cooling effect on the wood stud, which resulted in a decrease in the centre charring rate. However, the edge charring rate increased with the time.

Another consequence with an insulated cavity is that the exposed gypsum board will be hotter than in an uninsulated construction. This will have the effect that the exposed gypsum board will fall off the wall earlier in the furnace test. This will cause a premature integrity, insulation and structural failure if the cavity is insulated with glass wool due to the increased heat flux. The heat flux will increase (due to the glass wool melting) and the wood stud and the unexposed board will become directly exposed to the flames. Rockwool will not melt even if it is directly exposed to flames.

The glasswool did not melt in the bench-scale test. However, the furnace test can cause temperatures higher than those achieved at a constant radiation of 50 kW/m^2.

6.5 Effects of open joints on char characteristic

6.5.1 Results

Three different tests were conducted to research the effects of open joints. The joint widths were 7 mm, 13 mm and 20 mm. The wood stud was protected with a 12.5 mm Fyreline and exposed to a radiant heat from the conical radiator of 50 kW/m^2.

A flame with an average flame height of 20 mm was observed at the joint in all experiments. The test set up of test 14 can be seen in figure 6.5.1.1.

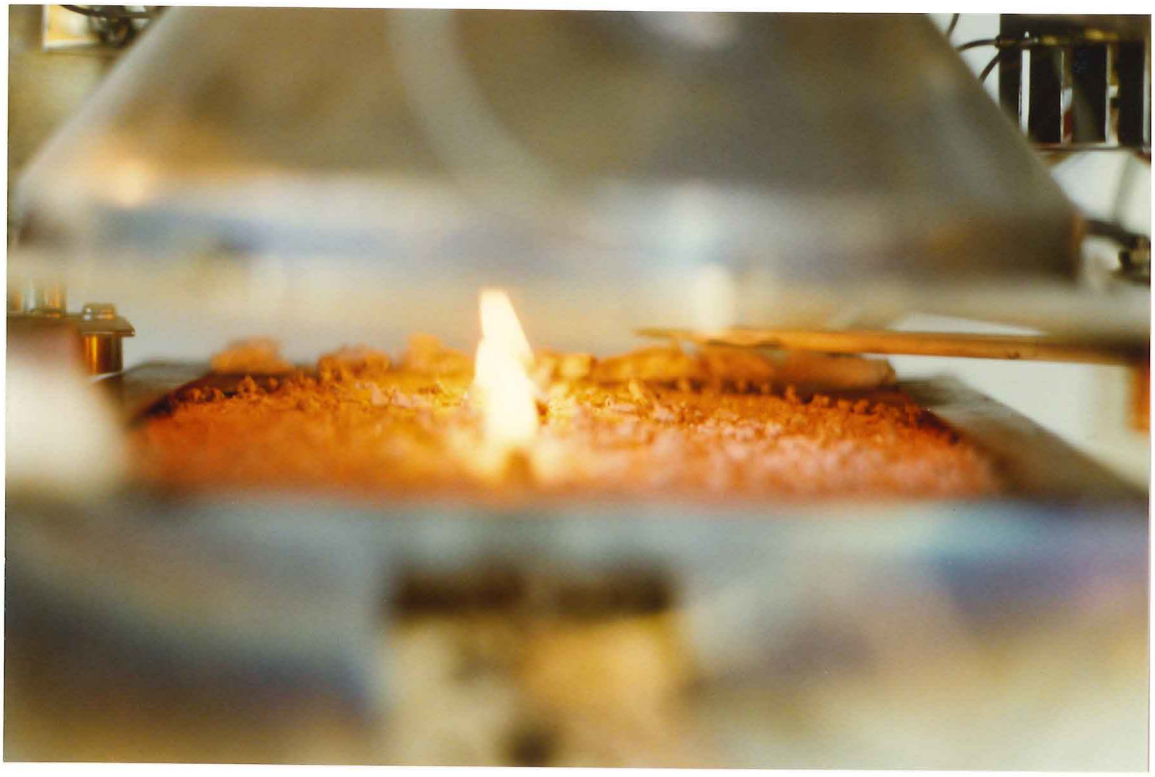


Figure 6.5.1.1: Flame in joint opening.

The char depth for the three different tests versus time are plotted in figure 6.5.1.2.

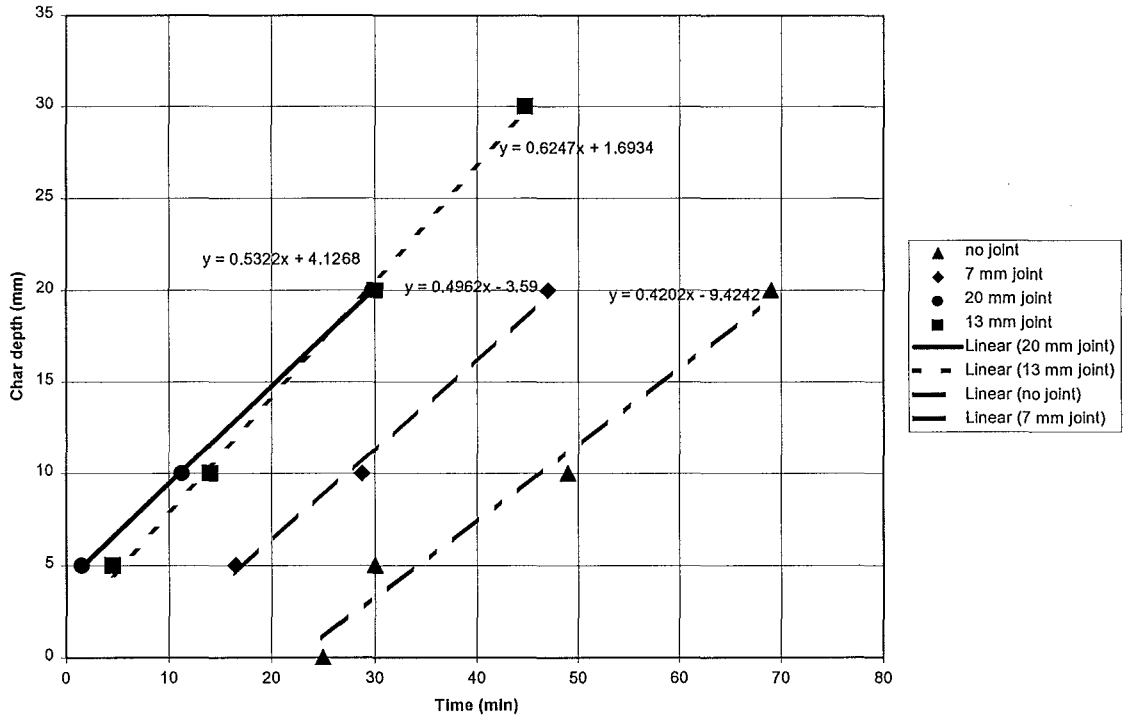


Figure 6.5.1.2: Char depth versus time for different joint openings.

Different linear regression models were fitted for the data and are presented in figure 6.5.1.2. Figure 6.5.1.2 shows that the charring rate was not strongly dependent on the joint width since the lines are almost parallel. The charring rate in the centre of the wood stud varied between 0.5 and 0.6 mm/min for the different joint openings.

The time to the start of charring was dependent on the joint width. The visual observations concluded that the time to onset of charring occurred within one minute form the start of the test. The joint width versus the time to reach a char depth of 5 mm in the centre of the wood stud is displayed in figure 6.5.1.3.

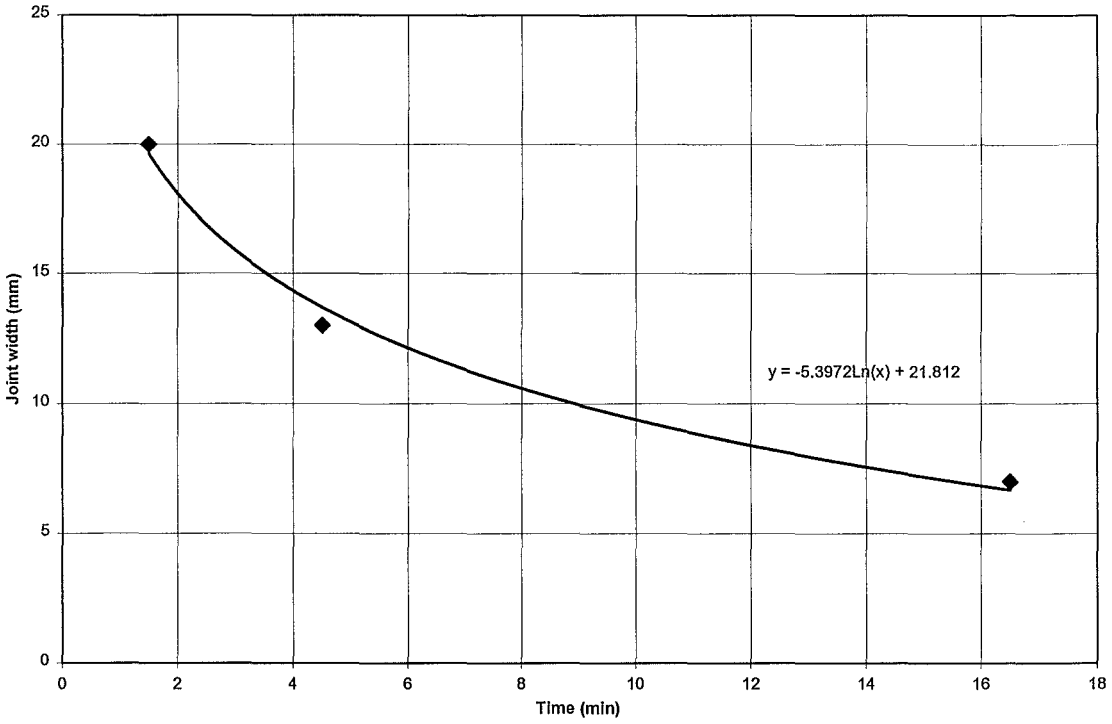


Figure 6.5.1.3: Joint width versus time to reach a char depth of 5 mm.

A logarithmic regression model was the best suitable relation for the test data. The relationship is displayed in figure 6.5.1.3. Figure 6.5.1.3 shows that the start of charring was dependent on the joint width.

6.5.2 Discussion

The charring rates at the centreline in the wood stud varied between 0.5 and 0.6 mm/min for the different joint openings. The charring rates were lower than the charring rate for the tested standard GIB boards (0.75 mm/min) and slightly higher than the tested Fyreline boards (0.4 mm/min) without a joint opening. The charring rate was not greatly affected by the joint width. In fact, the type of board was more important than the joint opening.

However, the onset of charring is dependent on the joint width.

There is a complex heat transfer at the joint opening and in the wood stud, which becomes even more complicated due to the presence of a flame in the joint opening. The radiation heat transfer relations, the general heat balance, and the combustion process at the joint are extremely difficult to model from first principle. Holmstedt et al. (1997 a) developed a narrow band radiation model and a pyrolys model (1997 b) to model flame spread over surfaces. It is probably possible to use this CFD model to investigate the heat transfer at the joint. This was not researched in this study. Additional research is needed to present rigorous sound engineering calculation methods on this aspect.

6.6 The behaviour of lining paper

6.6.1 Results

The lining paper developed into a flaming fire within one minute from start of the tests. The flaming fire lasted for a maximum of two minutes for all tests. The char had oxidised completely within 10 minutes from the start of the tests. Figure 6.6.1.1 shows the burning paper lining.

Figure 6.6.1.1: Flaming paper lining

The paper on the cavity side of the gypsum boards were observed to have charred slightly.

6.6.2 Discussion

The radiation heat flux back to the surface from a flame has been measured to be in an order of approximately 7% of the total heat released from the combustion (Friedman, 1997). The short maximum peak heat release from the burning lining paper will generate a radiant heat flux from the flame to the surface of near 10 kW/m^2. This can simply be estimated by assuming stochiometric burning, a heat of combustion of 16 MJ/kg and a conservative mass loss rate of 0.01 $kg/s\ m^2$, and using equation 6.6.2.1. Equation 6.6.2.1 is displayed below.

$$q'' = a\ m\ \Delta H_c \qquad (6.6.2.1)$$

where

q'' is the radiation heat flux (kW/m^2),

a is the fraction of radiation from the flame to the surface,

m is the mass loss rate ($kg/s\ m^2$) and

ΔH_c is heat of combustion (kJ/kg).

The mass loss rate of the paper was estimated assuming a density of 600 kg/m^3, a thickness of 0.4 mm and a burning time of 24 s.

The soot from the flame will partly block the radiation from the conical radiator. The net heat flux to the gypsum board will therefore be only slightly higher than 50 kW/m^2 under a very short time period, which will not affect the test data. The paper lining was not taken into account in the modelling in this research report.

6.7 The behaviour of gypsum plasterboards

6.7.1 Result

During the fire exposure, hairline craze cracking and a few continuous cracks were observed. It was discovered visually that the cracking behaviour was dependent on the board thickness, board type, and the heat flux from the conical radiator.

A thinner board had more cracks than a thicker board, which was concluded from visual observations.

The structural stability was tested by carefully tearing the Fyreline boards apart after the experiments. All boards except a 12.5 mm Fyreline that was exposed to 100 kW/m^2 had structural resistance left due to the intact glassfibres.

There was no structural stability left in the standard GIB boards, since they did not contain any glassfiber.

6.7.2 Discussion

The amount of cracks was dependent on the board thickness. A 16 mm Fyreline board had less cracks than a 9.5 mm Fyreline board. The 16 mm board contained more fibreglass and had therefore a greater resistance against cracking. However, it should be noted that the cracking in a real furnace test is initiated by shrinkage. In the cone, the small bits of board are free to shrink, so the cracking only occurs because of differential temperatures in the board.

The temperature on the unexposed side of the 12.5 mm Fyreline board, which was exposed to a radiant heat of 100 kW/m^2, reached 590 °C. No fibreglass could be discovered in the specimen after the test and there was no structural stability left. A temperature criteria can be used in engineering calculations to estimate the time when the gypsum board will fall off the wall. This method has been suggested in recent research reports. Cooper (1997) suggested that the gypsum board will not be in place when the temperature of the unexposed side exceeds 600 °C. Gyproc (pers. comm.) recommends a value of 700 °C for their 16 mm Gyproc F plasterboard.

The critical temperature is dependent on board type, board thickness, board attachment and if the board is placed horizontally or vertically. Hence, a test is necessary to estimate the critical temperature at which there is no structural stability left in the board. A bench-scale test can be used to investigate this. There exists a standard in Austria (ONORN B 34 10), which is an obsolete American standard (ASTM C 473 - 74), for determination of type X gypsum lath. This standard can be used as the discussed bench-scale test to determine the critical temperature. The sample is cut into 305 mm by 406 mm pieces and then hung vertically in a 10 kg load and exposed to a Merker burner at the midpoint at 843 °C (ASTM C 473 - 74).

The standard GIB board lost all of its structural resistance when it was exposed to high radiant heat. The board disintegrated into Plaster of Paris after exposure. Hence, it is difficult to estimate the performance of a standard GIB board in a furnace test. A temperature criteria, as suggested earlier, cannot be used for standard GIB boards since they do not loose their stability at such a distinctive temperature as the case is for Fyreline boards. Further research is necessary to investigate cracking behaviour of gypsum plasterboards.

6.8 Effects of different wood stud sizes

6.8.1 Results

The effects of different wood stud sizes was investigated by comparing the char rate for a 35*90 mm wood stud and a 45*90 mm wood stud. The wood studs were protected with 12.5 mm Fyreline gypsum boards and exposed to a radiant heat of 50 kW/m^2. The char depth versus time, calculated from the thermocouple data, is shown in figure 6.8.1.1.

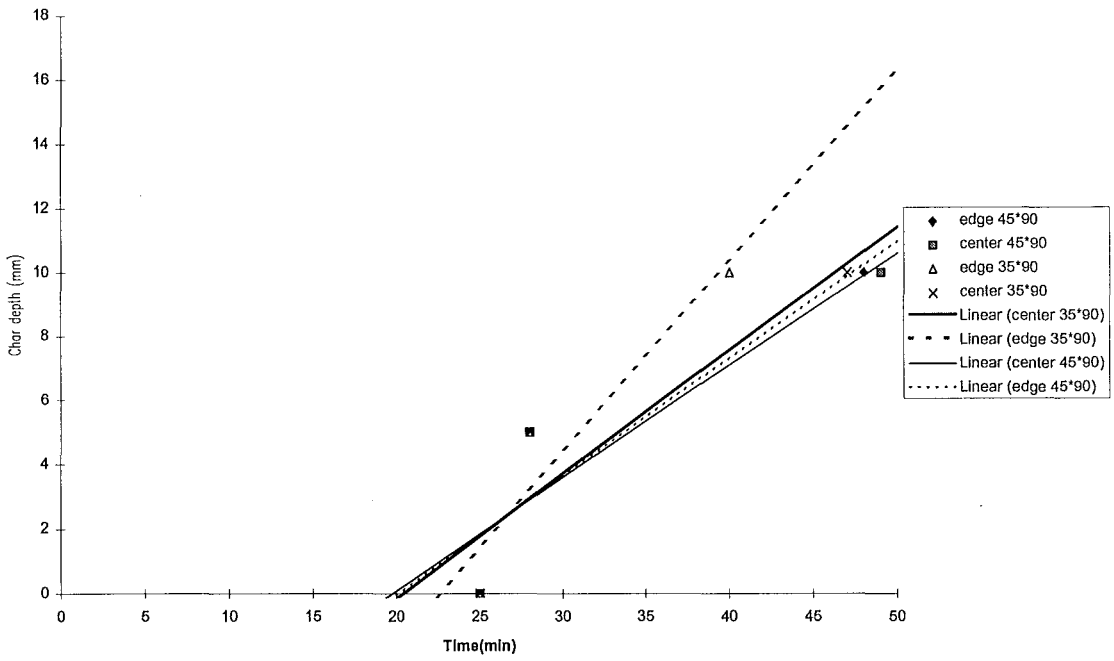


Figure 6.8.1.1: Char depth versus time for a 35*90 mm wood stud and a 45*90 mm wood stud.

Figure 6.8.1.1 shows that the onset of char occurred at the same time for both of the tested wood studs. The charring rate at the edges was higher for the 35*90 mm wood stud than for the charring rate at the edges of the 45*90 mm wood stud, since the line is steeper for the 35*90 mm stud than the 45*90 mm stud. The charring rates at the centre of the stud were similar for the tested wood studs.

6.8.2 Discussion

The wood stud did not seem to have a great influence on the time to onset of char since the start of char occurred at the same time for both the different tested wood studs.

The charring rate at the edges was higher for the thinner wood stud. However, the charring rate for the thinner wood stud was measured from thermocouples that were placed approximately 3 mm closer to the side of wood stud than for those in the thicker wood stud. This explains the higher charring rate.

6.9 Conclusions

It has been shown that it is not possible to use a constant heat flux in the cone calorimeter to achieve the similar charring rate and time to onset of char as those observed in full-scale experiments. However, the study concludes that it is possible to use 50 kW/m^2 for a conservative prediction of time to the start of charring. An empirical equation was derived (equation 6.3.1.3), which can be used to conservatively predict the onset of charring for Fyreline gypsum boards.

A better agreement between cone calorimeter charring rates and full-scale charring rates can be obtained by deriving the ratio between the char depths in the cone calorimeter and those in the furnace. However, such correlations vary with board thickness and board type.

The heat flux from the conical radiator can be set to simulate the time dependent heat flux, generated in the furnace test. This would create a testing environment closer to the one in the furnace test, and correlations such as equation 6.1.2.1 to 6.1.2.5 would not be necessary.

The thermocouple data can be extracted from the experiments and integrated in a thermal computer model to correlate the thermal properties. The thermal computer model can after calibration be used to simulate the full-scale behaviour.

The charring rates for wood studs protected with Fyreline boards tested in this study were 0.41 - 0.44 mm/min. The charring rates for wood studs protected with standard GIB boards were 0.71 - 0.79 mm/min. The charring rate was strongly dependent on the board type, but not greatly dependent on board thickness.

The charring rate increases with the heat flux from the conical radiator.

The centre charring rate is higher when the cavity is insulated than if the void is not insulated. However, the insulation protects the sides of the stud from the hot cavity

gases and therefore decreases the edge charring effects. An insulated cavity results in a hotter exposed gypsum board and hence a premature board failure.

To insulate the void with glasswool is worse for the structural resistance of the light timber frame wall than if the void is not insulated. The exposed board will fall off earlier in the test than for an uninsulated wall. The glasswool will melt when it is exposed to the flames and therefore increase the charring rate of the wood stud at an earlier stage than for an uninsulated wall.

Natural wool can be compared with an uninsulated cavity, since the charring rate and board failure would be similar to those achieved with an uninsulated cavity, because the natural wool will shrink create a void during the test at a relatively low temperature.

Though using Rockwool will result in a premature failure of the exposed board, the mineral wool will behave better than an uninsulated cavity. This occurs since the insulation will protect the wood stud from edge charring effects, both before and after the integrity failure of the exposed gypsum board.

The charring rate is not greatly affected by the joint width. The onset of charring, though, is dependent on the joint width. The mechanism behind this involves a complex heat transfer. Additional research is needed on this aspect.

The burning paper lining will not considerably affect the heat transfer in a wall construction.

The amount of cracks formed in a gypsum board depends on the board's thickness. A thinner board will have more cracks than a thicker board.

A temperature criteria can be used in engineering calculations to estimate the time when the gypsum board will fall off the wall. A bench-scale test can be used to investigate this. However, a temperature criteria cannot be used for standard GIB

boards since they do not loose their stability at such a distinctive temperature, as is the case for the Fyreline boards.

Chapter 7 Heat transfer model

7.1 Objectives

The heat transfer modelling in this study was done with a finite element method (FEM) heat transfer software. The modelling was mainly performed to research the following:

- The accuracy of heat transfer calculations of light timber frame wall systems, using thermal properties and heat transfer coefficients recommended in the literature.
- The ability of using a FEM heat transfer software together with results from bench-scale tests to derive "effective" thermal properties, and to predict full-scale behaviour.

7.2 Heat transfer model

Heat transfer through cavity walls is modelled using TCD v3.1. The computer package has been developed by Fire Safety Design and consists of six main parts. They are: TEMPCALC, LINA, LISA, LOTTA, FIRE-DESIGN, and SYSTEM DATA.

The TEMPCALC program is a two-dimensional temperature calculation program, which solves the transient two-dimensional heat transfer equation described below with finite element method (Fire Safety Design, 1997).

$$\frac{\partial}{\partial x}\left(k\frac{\partial T}{\partial x}\right)+\frac{\partial}{\partial y}\left(k\frac{\partial T}{\partial y}\right)=\rho c\frac{\partial T}{\partial t}-Q$$

where

T is the temperature (°C),

k is the thermal conductivity (W/mK),

c is the specific heat (J/kgK),

ρ is the density (kg/m^3) and,

Q is the element heat generation.

The processes that transmit heat between the boundaries, are radiation and convection. The general equation for radiation and convection, assuming a grey body and two infinite parallel plates, is described as (Fire Safety Design, 1997):

$$q_n = h\,(T_g - T_b) + \varepsilon_r\,\sigma\,(T_g^4 - T_b^4) \qquad (7.4.1.1)$$

where

q_n is the net heat flow at the boundary (W/m^2),

h is the convection heat transfer coefficient (W/m^{2}K)

T_g is the gastemperature (K),

T_b is the boundary temperature (K),

ε_r is the resultant emissivity and

σ is the Stefan - Boltzmann constant (W/m^{2}K^4).

The heat transfer in the void is treated more simplistically in TEMPCALC. Radiation between the surfaces are not included in the model. Only convection and radiation between surfaces and enclosed air are considered. The basic condition to fulfil is, that the net heat stored in the enclosure is used for warming up the air. The following energy balance is solved (Fire Safety Design, 1997).

$$\sum_{i=1}^{N}\left(\Delta t\alpha\left(T_g - T_i\right) + \Delta t\varepsilon_r\sigma\left(T_g^4 - T_i^4\right)\right)L_i + \rho cA_{cavity}\left(T_g - T_{g,old}\right) = 0$$

where

Δ timestep [s]
α convection[W/m^{2}K]
T_g Gas temperature [K]
T_i Surface temperature [K]
ε_r Surface emissivity [1]
σ Stefan-Boltzmann constant
ρ density[kg/m^3]*
c specific heat [J/kgK]

LINA is the pre-processor in the computer package. The structure is defined by boundary lines, horizontal lines and vertical lines. Based on these lines LINA automatically constructs the finite element division. The heat transfer coefficient and the resultant emissivity versus time has to be specified for each boundary type. The conductivity and the heat capacitivity (J/m^{3}K) are specified for each of the materials that are used. The exposure curves are specified and the time steps are finally specified.

Material properties, conductivity, convective heat transfer coefficients, emissivities and exposure curves can be stored in and retrieved from the database LISA.

FIRE-DESIGN is a design program for steel-columns, steel beams, concrete columns and concrete beams.

LOTTA is the post-processor, which can plot curves, isotherms and mesh profiles to illustrate material data and results from design calculations.

7.3 Thermal properties and behaviour

7.3.1 Gypsum boards

The main component in gypsum boards is calcium sulphate dihydrate, $CaSO_4 \cdot 2H_2O$. The amount of chemically-combined water is approximately 21% in weight. The boards also contain a small amount of free water. The gypsum boards are covered with a thin paper cover on both sides. Other possible components in gypsum boards are glass fibre, vermiculite, fly ash, and other minor additives to improve mechanical and fire properties. The glass fibre acts as a binder of the gypsum core. Vermiculite is used to counter the contraction undergone by heated gypsum. Fly ash acts as a stable temperature filler (Goncalves et al., 1996).

The thin paper cover was observed to burn off in the beginning of the tests. The paper coverage is ignored in the modelling. The behaviour of paper lining and its effect on the heat transfer are discussed in paragraph 6.6.

Although the paper lining is combustible, the heat required to decompose the gypsum and drive off its chemically bound water of hydration provides gypsum wallboard with excellent fire resistance. The dehydration process can be described as (Goncalves et al., 1996):

$$CaSO_4.2H_2O \xrightarrow{Heat} CaSO_4.1/2H_2O + 3/2H_2O \xrightarrow{Heat} CaSO_4 + H_2O$$

The capillary water is evaporated at or below100 °C before the reaction, showed above, starts.

Goncalves et al. (1996) reported that gypsum will undergo a transformation to hemi-hydrate form at 200 °C. Mehaffey et al. (1994) measured the apparent specific heat and determined that the temperature, at which the transformation to hemi-hydrate form occurs, is dependent on the heating rate. They used a differential scanning

calorimeter to measure the specific heat. Mehaffey et al. concluded that the transformation to hemi-hydrate is taking place around 100 °C when a scanning rate of 2 °C/min is used. The transformation to hemi-hydrate occurred at 150 °C when a scanning rate of 20 °C/min was used.

(Goncalves et al., 1996) reported further that the transformations to anhydrate I occurs between 300 °C and 700 °C, which undergoes a further transformation to anhydrate II between 700 °C and 1200 °C and to anhydrate III over 1200 °C.

During continues heating of the board, the board will start to shrink and develop fissures as well as opening of joints. This will significantly increase the heat transfer through the board, and creates difficulties in modelling.

The heat transfer is also dependent on the moisture migration through the board, which is a complex process. There is no present theory available to predict the mass transfer in gypsum boards, with a sound engineering technique, for integration in a FEM model (Mehaffey et al., 1994). Hence, the moisture migration in the gypsum has been ignored. Consequently, the temperature versus time results from the modelling below 200 °C will not be accurate.

7.3.1.1 Representation of the density, specific heat and thermal conductivity of Gypsum

In principle, it is possible to represent the heat generation term Q in the general heat balance equation, which the FEM software solves (see paragraph 7.2), for the dehydration of gypsum using an Arrhenius expression. However, the pre-exponential term and the activation energy for the process are poorly known (Mehaffey et al., 1994). Therefore, the FEM models generally use an apparent specific heat, density, and thermal conductivity to model the heat transfer in gypsum.

The apparent specific heat, density and thermal conductivity are determined with the use of traditional property-measurement techniques.

There are a range of data available for the measured thermal properties. The initial input to the finite element method (FEM) heat transfer software used in this study, is the experimental measured thermal properties on a "Type X" board, as presented by Mehaffey et al. (1994) and Cooper (1997), and are presented in figure 7.3.1.1.1 and 7.3.1.1.2.

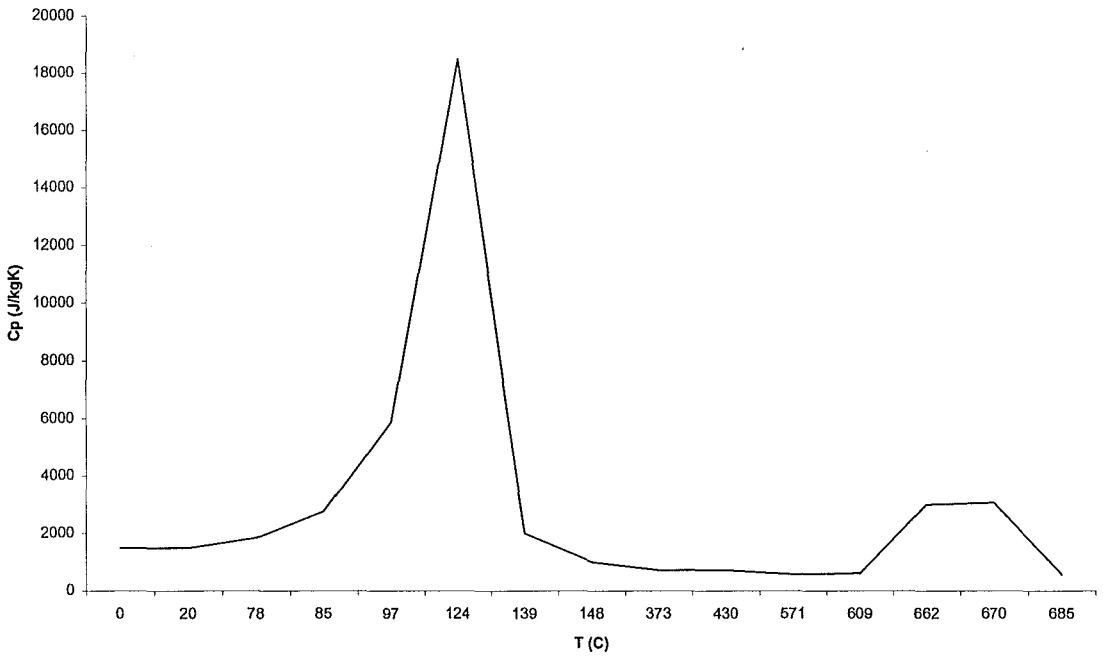


Figure 7.3.1.1.1: Specific heat versus temperature as presented by Cooper (1997).

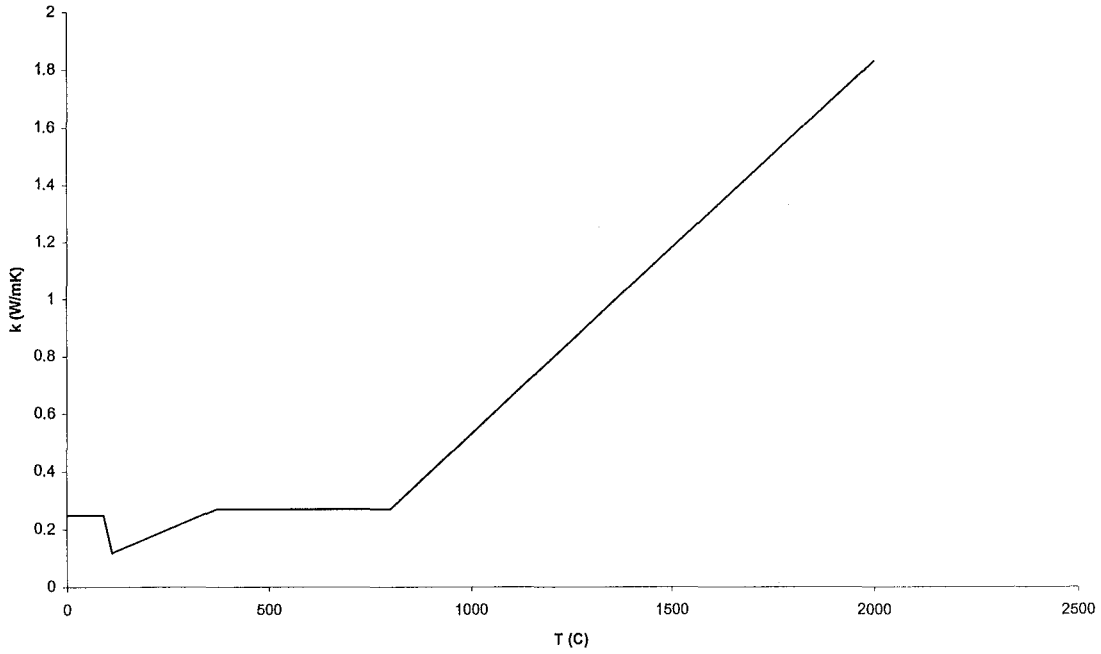


Figure 7.3.1.1.2: Thermal conductivity versus temperature as presented by Cooper (1997).

The mass loss rate in gypsum is mainly due to the dehydration process. The mass loss rate was measured by Mehaffey et al. (1994), and is presented in figure 7.3.1.1.3.

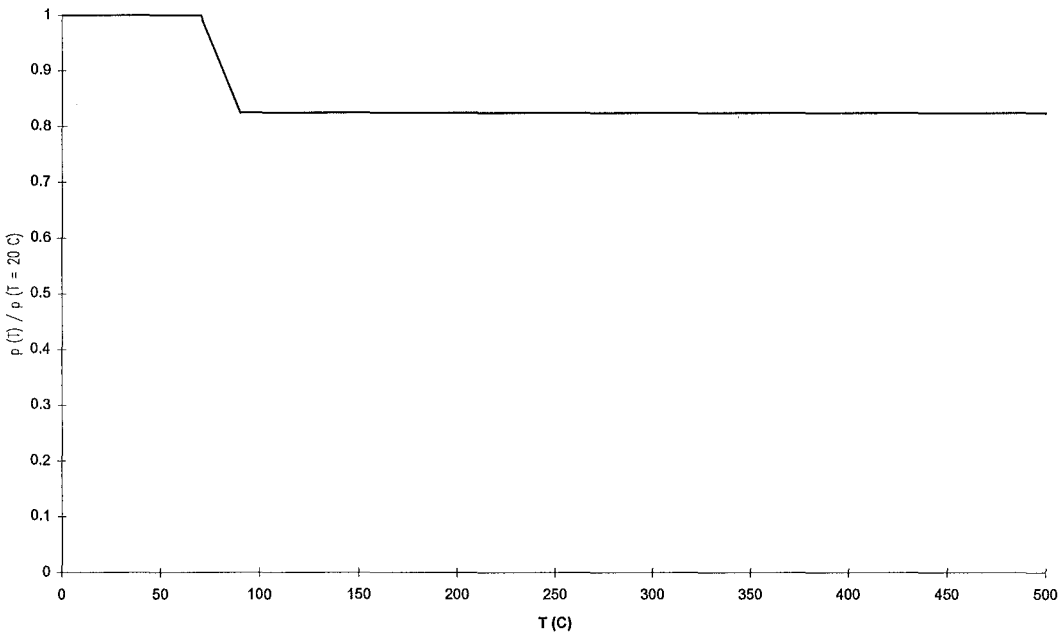


Figure 7.3.1.1.3: Fractional density versus temperature as presented by Cooper (1997).

7.3.2 Wood studs

The wood stud is protected with gypsum boards. The wood stud will be heated after a certain time. The free moisture will evaporate when the temperature reaches 100 °C. The wood undergoes a pyrolysis and charring process around 200 - 350 °C.

The modelling of heat transfer in wood is a complex process. An advanced model was developed by Fredlund (1988), which models pyrolys and moisture movement from first principles. However, this model is too sophisticated and cannot be used in simple analysis.

Mass transfer is ignored in this analyse since there is no simple theory available. The results below 200 °C, though, will never be accurate, since the moisture migration is not modelled from first principles.

7.3.2.2 Representation of the density, specific heat and thermal conductivity of gypsum

It is possible to represent the heat generation term Q in the general heat balance equation, which the FEM software solves (see paragraph 7.2), for the pyroloys of wood using an Arrhenius expression. However, the FEM models uses an apparent specific heat, density and thermal conductivity to model the heat transfer. The initial input into the finite element method (FEM) heat transfer software used in this study, are the suggested thermal properties as presented by Janssen (1994), who has done the most recent review in the area. The apparent thermal properties are presented in figure 7.3.2.1.1 and 7.3.2.1.2.

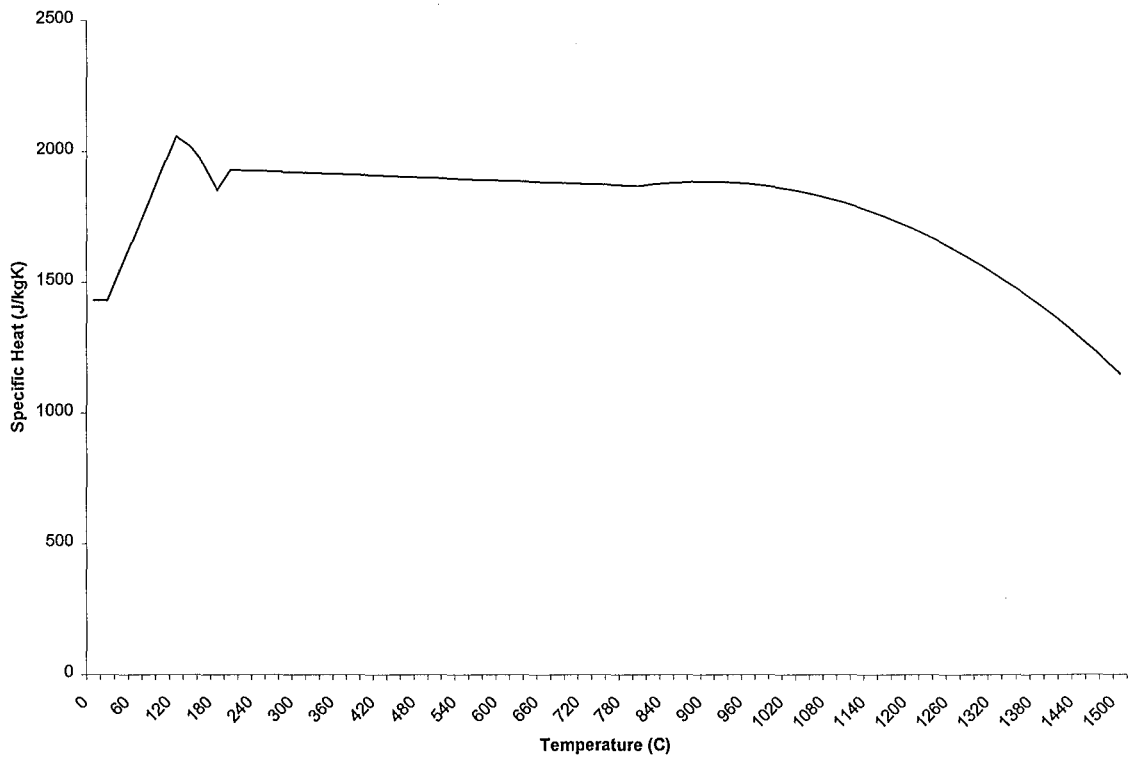


Figure 7.3.2.1.1: Specific heat versus temperature as presented by Thomas (1997).

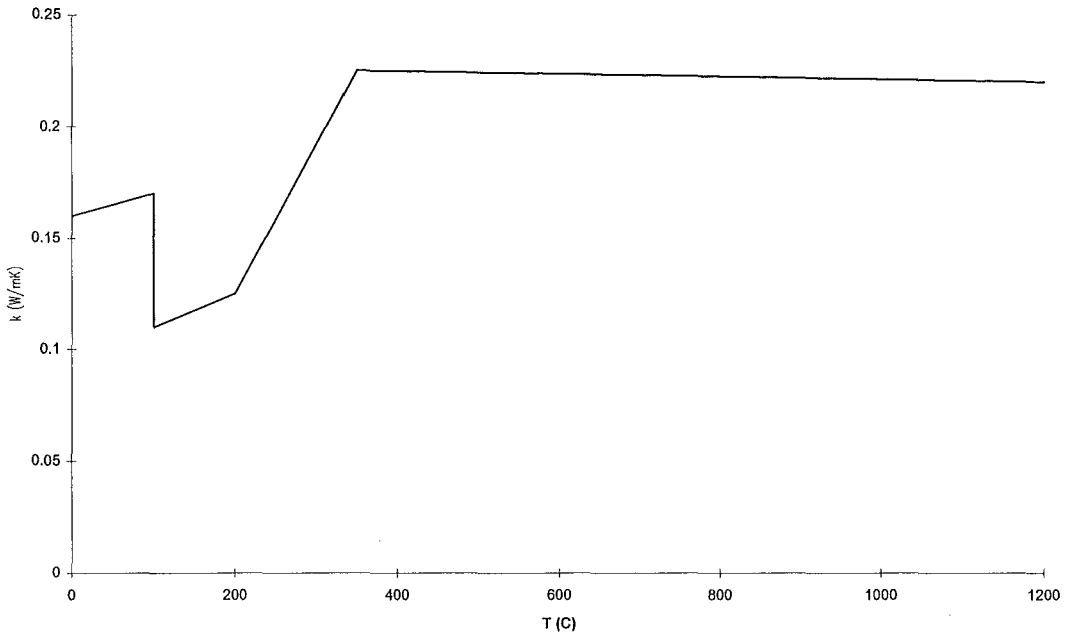


Figure 7.3.2.1.2: Conductivity versus temperature as presented by Thomas (1997).

The density ratio as a function of the time used in this study is from Janssen (1994) extracted from Thomas (1997) and presented in figure 7.3.1.2.3.

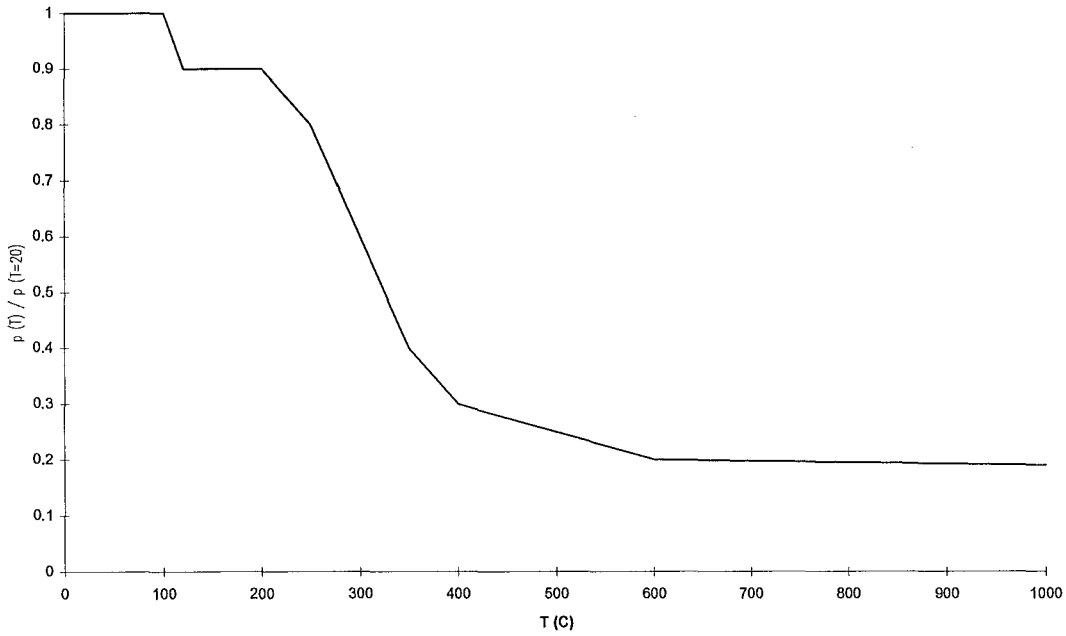


Figure 7.3.2.1.3: Density ratio of wood as a function of time as presented by Thomas (1997).

7.4 Heat transfer coefficients

The convection heat transfer coefficients and the emissivity values used in this study are summarised in paragraph 7.4.4, and comprehensively discussed in paragraph 7.4.2 and 7.4.3.

7.4.1 Convection heat transfer coefficients

Convection heat transfer is a complex procedure since it is a process governed by the laws of conduction at microscopic levels as well as laws of fluid mechanics (Tucker 1997). Thus, the convection heat transfer depends of the viscosity, density, specific heat, thermal conductivity, velocity and the type of fluid. All these variables are lumped together into an empirical derived coefficient, the convective heat transfer coefficient. The coefficient may be determined from conservation equations for simple cases (Atreya, 1988). However, the temperature dependence on the variables makes the derivation of the convective heat transfer coefficient extremely complex and unpracticable. It is therefore necessary to resort to experimental solutions.

The convection heat transfer coefficient for the gypsum surfaces of a light timber frame wall, exposed to a transient ambient temperature, can be described by a simplified power law relationship, which can be written as (Thomas 1997):

$$h = \beta (T_g - T_s)^{(\gamma - 1)} \qquad (7.4.2.1)$$

where

h is the convective heat transfer coefficient (W/m^2K),

β is the convection coefficient (W/m^2K^γ),

T_g is the gas temperature (K),

T_s is the surface temperature (K) and

γ is the convection power.

Thomas (1997) used a value of 1.0 for the convection coefficient and 1.33 for the convection power for the exposed side of the wall and inside the cavity. He used a value of 2.2 for the convection coefficient and 1.33 for the convection power for the unexposed side of the wall.

Some heat transfer models use equations 7.4.2.1, while others use a constant value of the convection heat transfer coefficient for simplicity. The FEM software used in this study, TEMPCALC, does not use a power law relation for the convection heat transfer coefficient. It is possible and quite accurate to use constant values for the convection heat transfer coefficient, which is further discussed below.

In the European standard code of practise for action on structures to fire, ENV 1991-2-7, the convection heat transfer coefficient for the exposed side is ascribed a conservative value of 25 W/m^2K. Kay et al (1996) suggests that there is no urgency to seek a better value because as the test procedure progresses, the surface temperature becomes closer to the gas temperature, and the contribution of the convection heat transfer decreases. Also, the radiation dominates with increasing temperature. The accuracy of the radiation heat transfer is therefore a more important issue.

Cooper (1997) and Mehaffy et al (1994) were using a constant convection heat transfer coefficient of 25 W/m^2K for the exposed surface, as suggested in the European standard code of practice.

Following the discussion above, a convection heat transfer coefficient of 25 W/m^2K for the exposed surface was used in the modelling in this research report.

In the European Standard Code of Practise for Action on Structures to Fire, ENV 1991-2-7, the convection heat transfer coefficient for the unexposed side is ascribed a value of 9 W/m^2K, which is used by Mehaffey et al (1994). The convection heat transfer coefficient for the unexposed side was assumed to be 9 W/m^2K in this study.

Mehaffy et al. (1994) were using the European Standard convective coefficient for the cavity. Cooper (1997) was neglecting the convection in the cavity. Based on Coopers sensitivity study, the convection heat transfer in the cavity is minor compared to the heat flux from the radiation. The convection heat transfer coefficient in the cavity was assumed to be 9 W/m^2K.

7.4.2 Emissivity

The emissivity is largely a function of surface finish, being very low for polished metal surfaces, but nearer to unity for dull oxidised material (Croft et al 1977). For calculation purposes, the emissivity is always assumed to be independent of temperature (Kay et al 1996). No guidance is available on the most appropriate values for the emissivity for gypsum surfaces. Thomas (1997), Cooper (1997), Mehaffy (1994) and Sultan (1996) concluded that an emissivity for the furnace, the unexposed gypsum board and the exposed gypsum board of 0.8 or 0.9 gives good predictions, with a small sensitivity. Hence, an emissivity of 0.9 was used, which should be quite conservative and accurate.

Thomas (1997) did a deeper investigation of the emissivity of the surfaces inside the cavity and suggested a resultant emissivity of 0.6, since the cavity is filled with water vapour and pyrolys gases during the test. This makes physical sense, and was used in this study.

The resultant emissivity was calculated with the following relation, assuming two infinite parallel plates (Tucker 1997):

$$\varepsilon_r = 1 / (1/\varepsilon_1 + 1/\varepsilon_2 - 1)$$

where

ε_r is the resultant emissivity,

ε_1 is the emissivity of one surface and

ε_2 is the emissivity of another parallel surface.

7.4.3 Representation of the convection heat transfer coefficient and the emissivity

The table below summarises the heat transfer coefficients used in the modelling in this research report.

Table 7.4.4.1: Heat transfer coefficients

Position	Resultant Emissivity	Convection heat transfer coefficient
Exposed side (furnace exposure)	0.82	25 W/m^2K
Exposed side (bench-scale test)	0.9	-
Cavity, Exposed board	0.6	9 W/m^2K
Cavity, Wood stud	0.6	9 W/m^2K
Cavity, Unexposed board	0.6	9 W/m^2K
Unexposed side	0.82	9 W/m^2K

7.5 Geometry of the finite element mesh

In general, several small elements yield high levels of accuracy but require more computational efforts. Small elements are needed where non-linear temperature distributions are expected, e.g. near boundaries. Figure 7.5.1 and figure 7.5.2 shows the finite element mesh for the simulation of the small-scale tests and the simulations of the furnace tests.

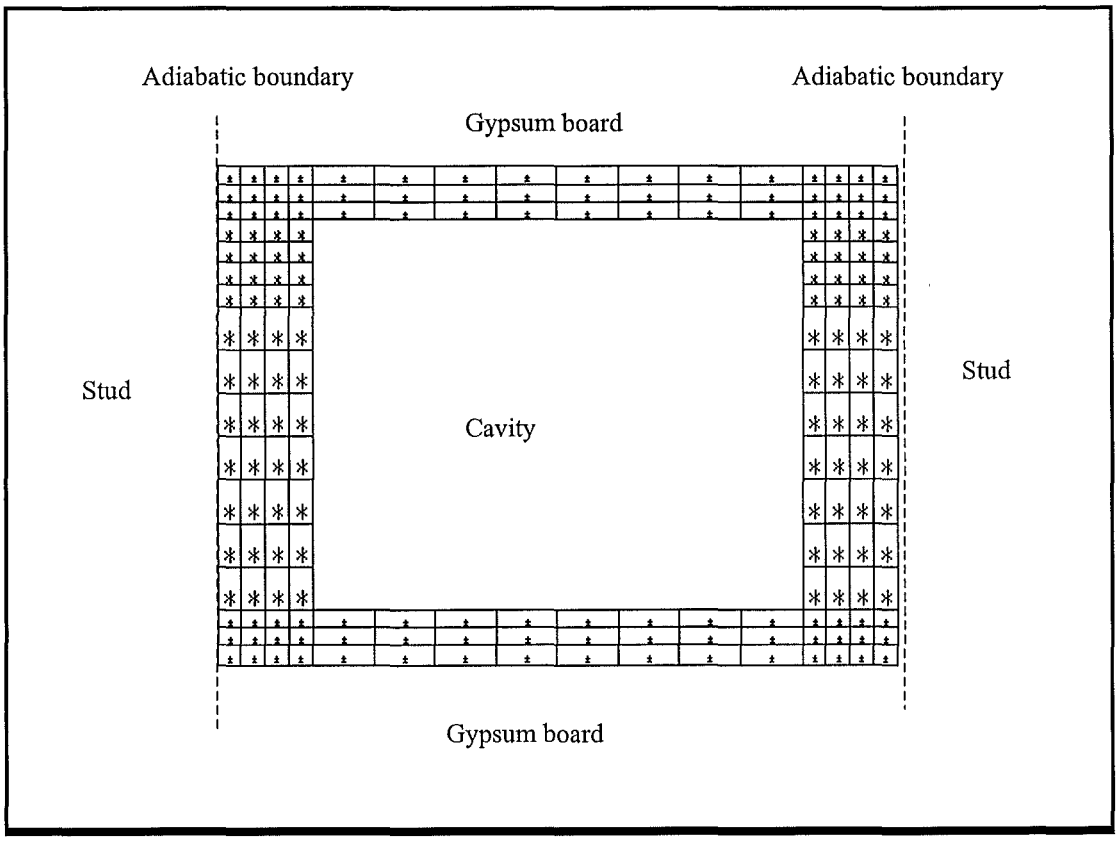


Figure 7.5.1: Layout of finite element mesh for simulation of small scale experiments.

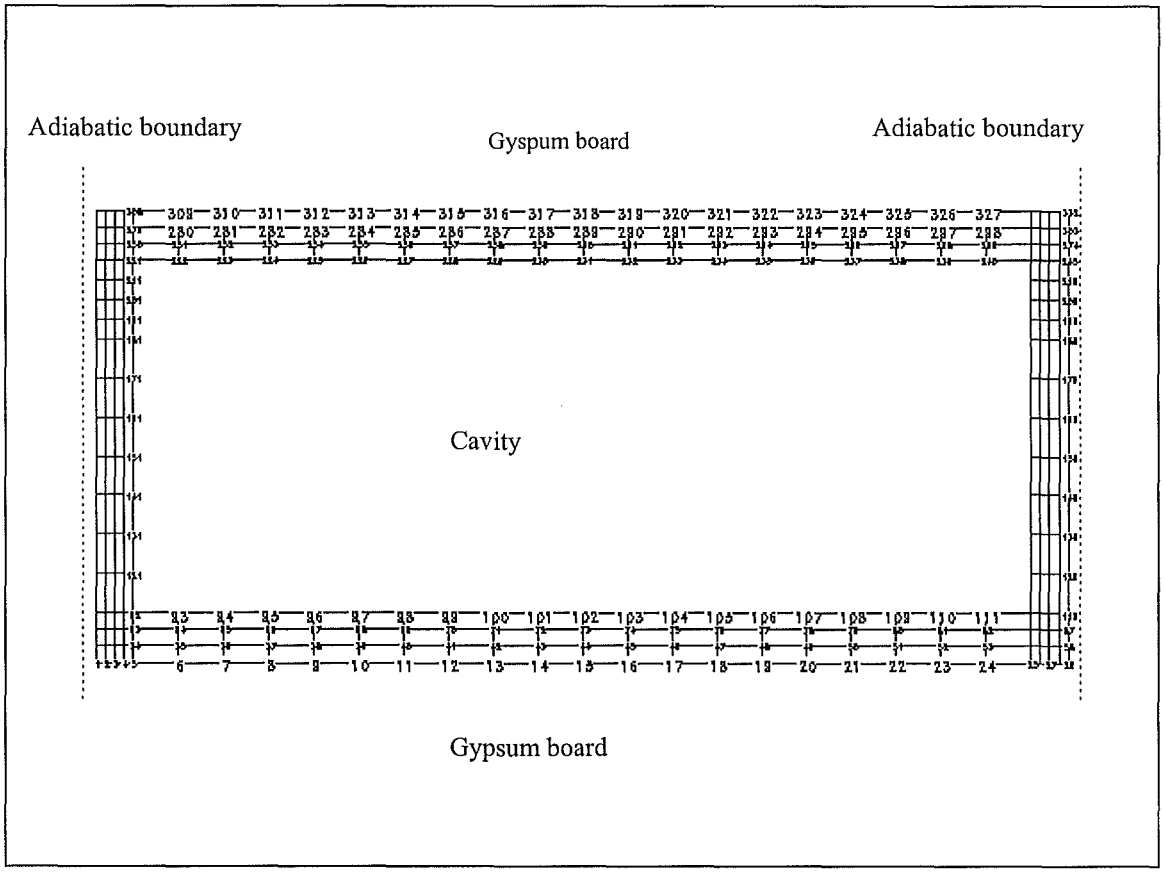


Figure 7.5.2: Layout of finite element mesh for simulation of furnace tests.

7.6 Assumptions used in this analysis

The following assumptions were made in the development of the finite element model of the light timber frame walls:

- The wood density used was 575 kg/m^3 at 12 % moisture content in accordance with the experimental measurements.
- The ambient temperature was assumed to be 20 °C.
- The thermal properties assumed were those displayed in paragraph 7.3.
- The heat transfer coefficients that were applied in the model were constant and are presented in paragraph 7.4.
- The emissivities and convection coefficients are the same for the gypsum plasterboard on both sides of the cavity and for the timber.

- Mass transfer is ignored.
- The ISO-834 is used to simulate the furnace temperature, rather than using the actual furnace temperature.
- The heat transfer in the cavity is treated only as convection and radiation between surfaces and the enclosed air.

Chapter 8 Calibration and validation of the heat transfer model

8.1 Comparison with bench-scale tests

The bench-scale tests were initially simulated with the thermal properties that were recommended in the literature. The results from these simulations are presented and discussed in this paragraph.

8.1.1 Results

Figure 8.1.1.1 shows the 300 °C isotherm for simulation of test 2 at 0.2h, 0.4h, 0.8h, 1.0h, 1.2h and 1.4h. A 45*90 mm wood stud was protected with a layer of 12.5 mm Fyreline on each side and exposed to a radiation of 50 kW/m^2 in test 2.

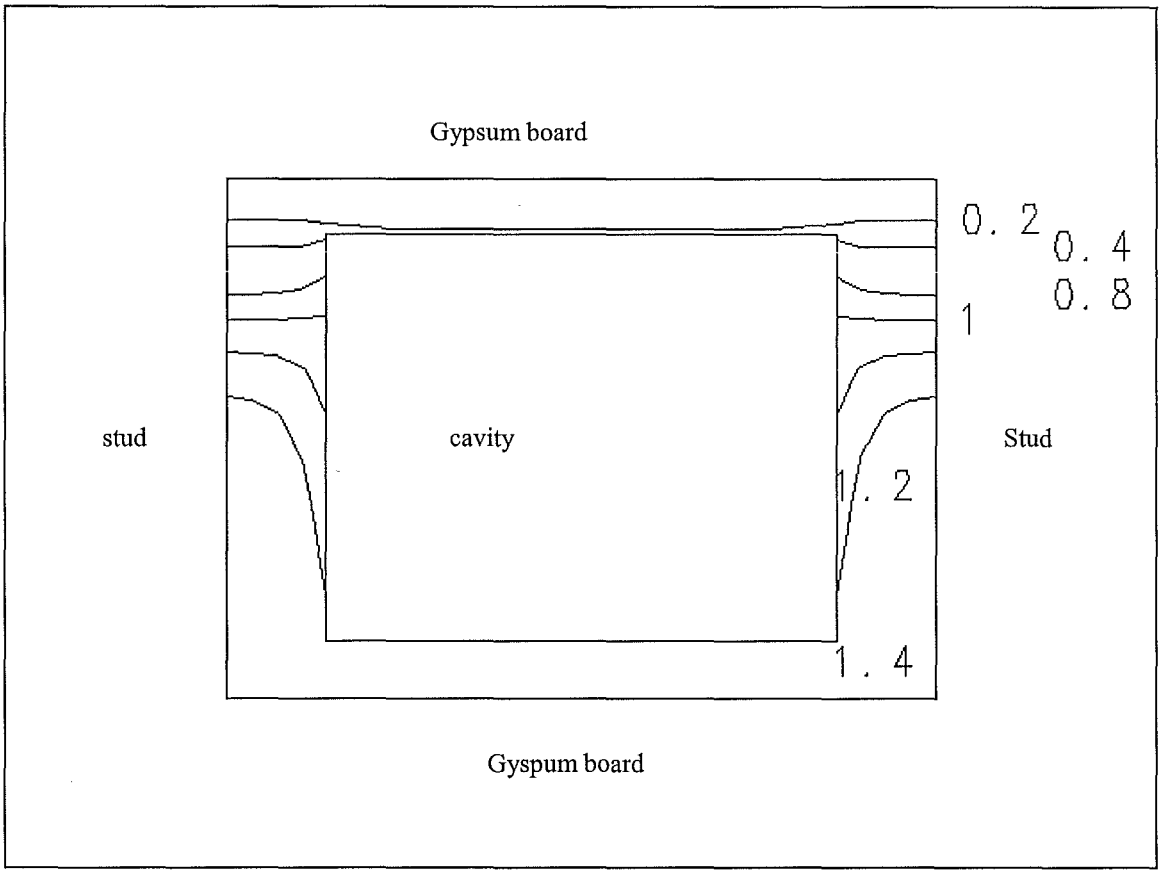


Figure 8.1.1.1: The 300 °C isotherm for test 2 (12.5 mm). Time is in hours.

Figure 8.1.1.1 shows that the temperature is lower at the edges than at the centre at the beginning of the test. This is because the 300 °C isotherm has not progressed so far down in the wood stud at the edges as it has at the centre. However, the charring at the edges increases with time and eventually becomes more severe than the charring at the centre. This is due to the fact that the isotherm line is deepening faster with time at the edges than it does at the centre.

Figure 8.1.1.2 displays the char depth versus time profile for the simulation of test 2 (12.5 mm) and for the actual measured data.

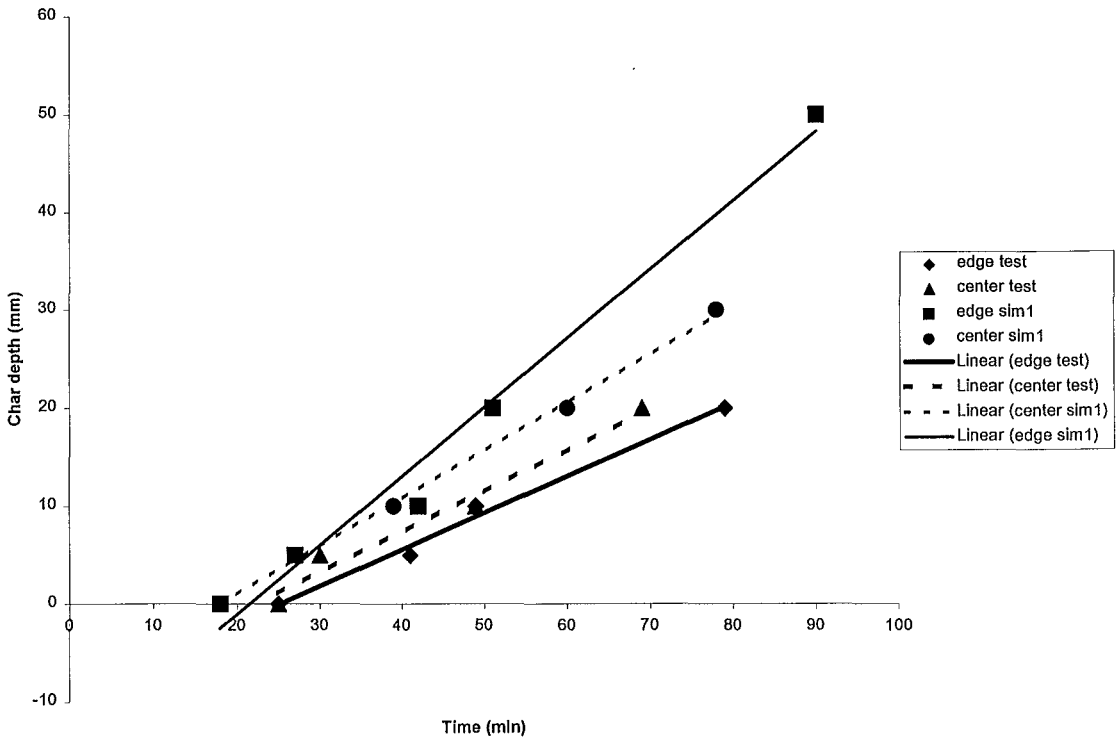


Figure 8.1.1.2: Char depth versus time for test 2 (12.5 mm).

The onset of char occurred earlier in the simulation than in the cone calorimeter test (see figure 8.1.1.2).

The charring rate lines are linear regressions fitted to the data plot. The charring rate was higher at the edges (edge thermocouple placement) in the simulation than in the test, since the edge charring line is steeper in the simulation than in the test. The charring rate at the centre was similar for both the simulation and the test since the lines are equally steep.

The temperature versus time data for the thermocouple placements (see figure 5.3.1) are plotted in figure 8.1.1.3 and figure 8.1.1.4 for test 2 and the simulation of test 2 (12.5 mm).

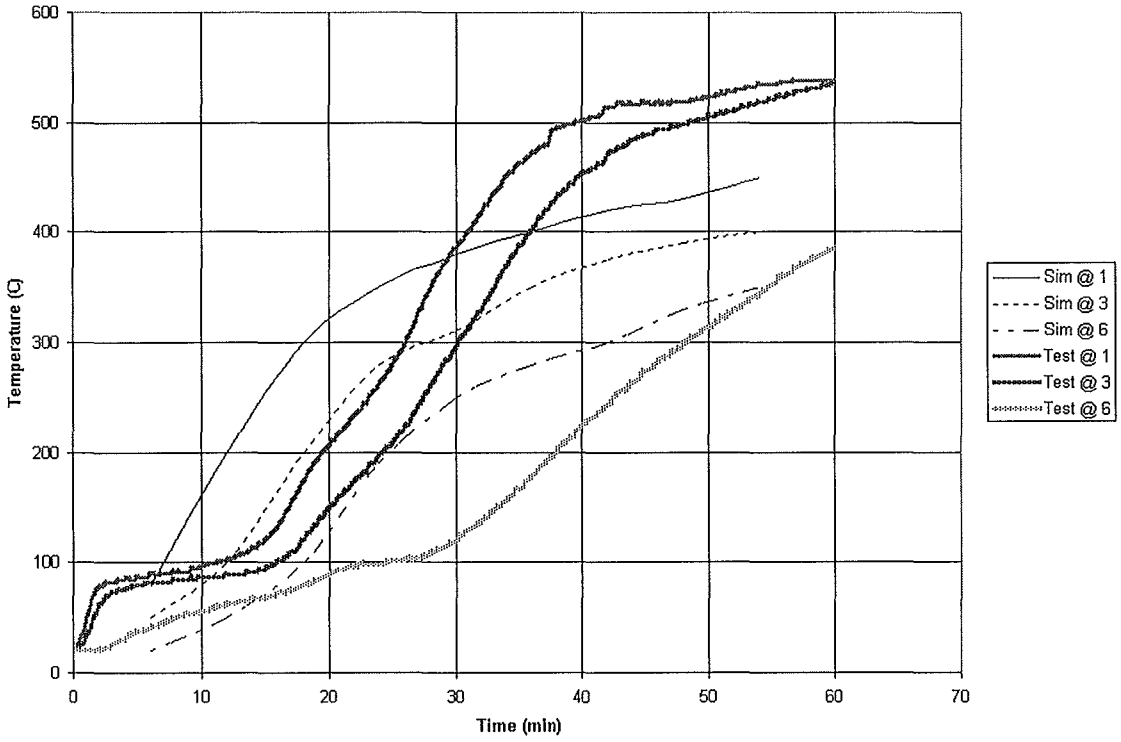


Figure 8.1.1.3: Temperature versus time in centre of the wood stud for test 2 (12.5 mm).

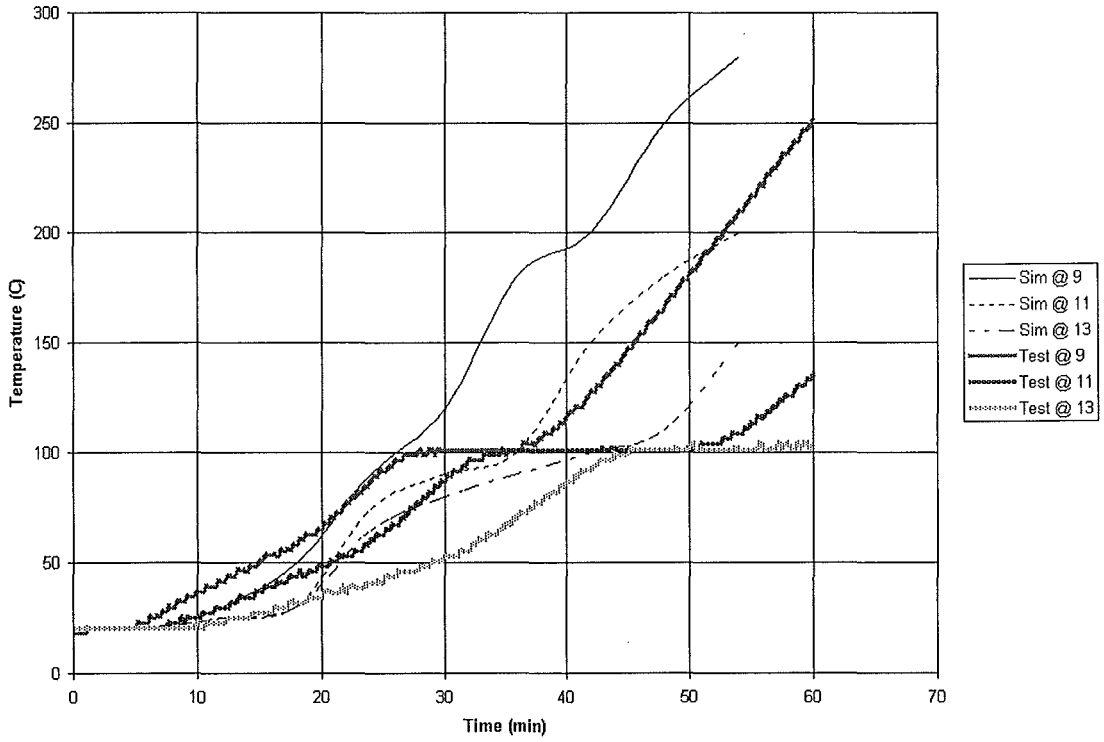


Figure 8.1.1.4: Temperature versus time in the centre of the wood stud for test 2 (12.5 mm).

Figure 8.1.1.3 and 8.1.1.4 shows that the simulations overpredicted the temperature in the wood stud between 100 °C and 400 °C, which resulted in a conservative prediction of the charring rate, as discovered in figure 8.1.1.2. It can also be concluded that the simulations underpredicted the temperatures in the wood stud at positions close to the gypsum board after 400 °C.

The same comparison was done for test 7, where a 45*90 mm wood stud was protected with a layer of 9.5 mm Fyreline on each side and exposed to a radiation of 50 kW/m^2.

Figure 8.1.1.5 and 8.1.1.6 displays the temperature versus time profiles for the simulation of test 7 (9.5 mm) and for the actual measured data. See also figure 5.3.1 for thermocouple placement.

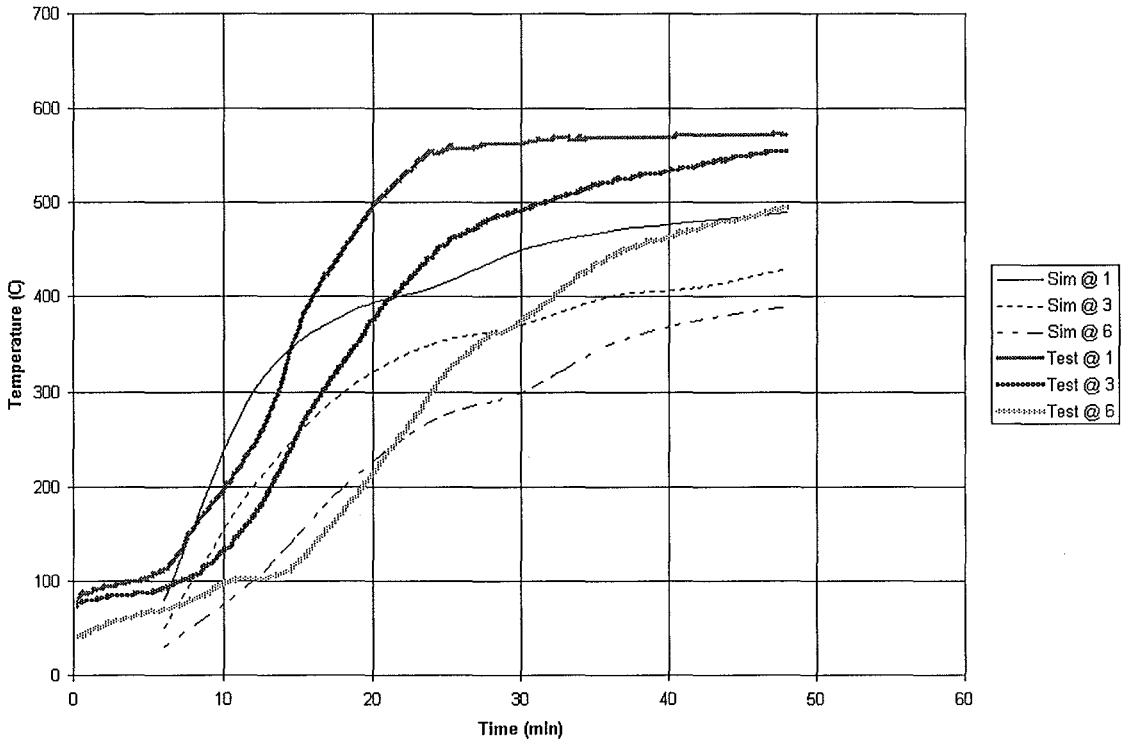


Figure 8.1.1.5: Temperature versus time in the centre of the wood stud for test 7 (9.5 mm).

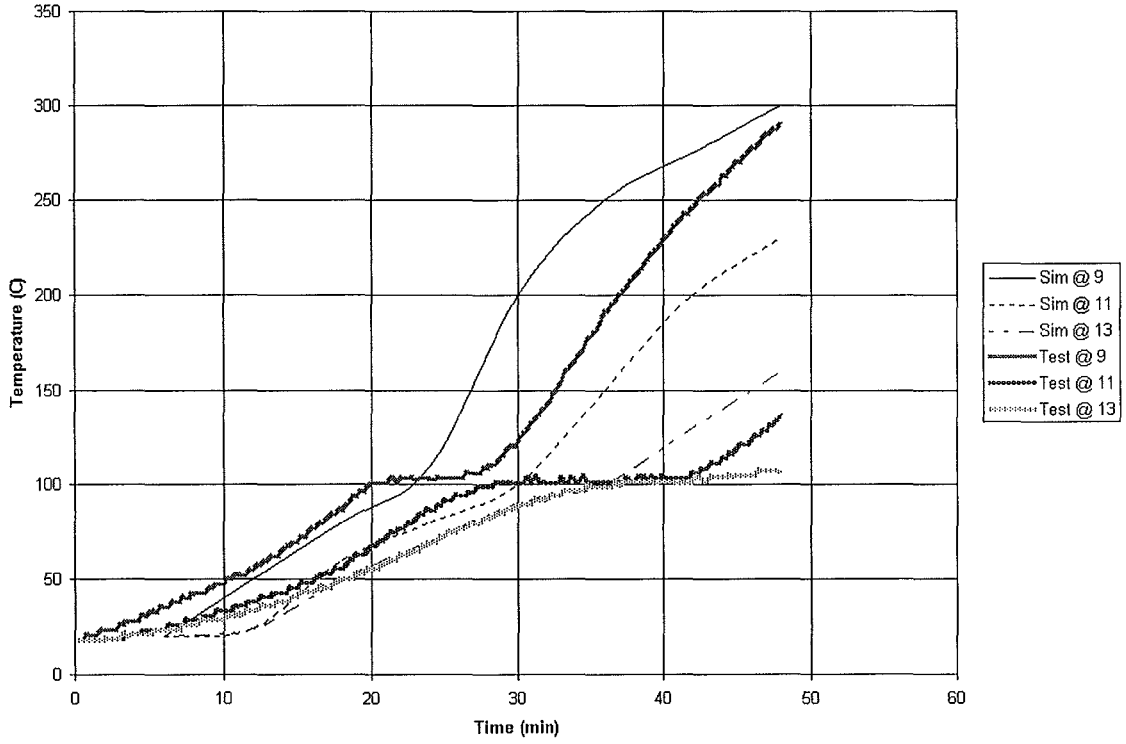


Figure 8.1.1.6: Temperature versus time in the centre of the wood stud for test 7 (9.5 mm).

Figure 8.1.1.5 and 8.1.1.6 shows that the simulations compared well up to 300 °C for positions in the wood stud close to the exposed gypsum board. The simulations underpredicted the temperatures in char.

Char depth versus temperature for test 7 (9.5 mm) and simulation of test 7 (9.5 mm) are shown in figure 8.1.1.7.

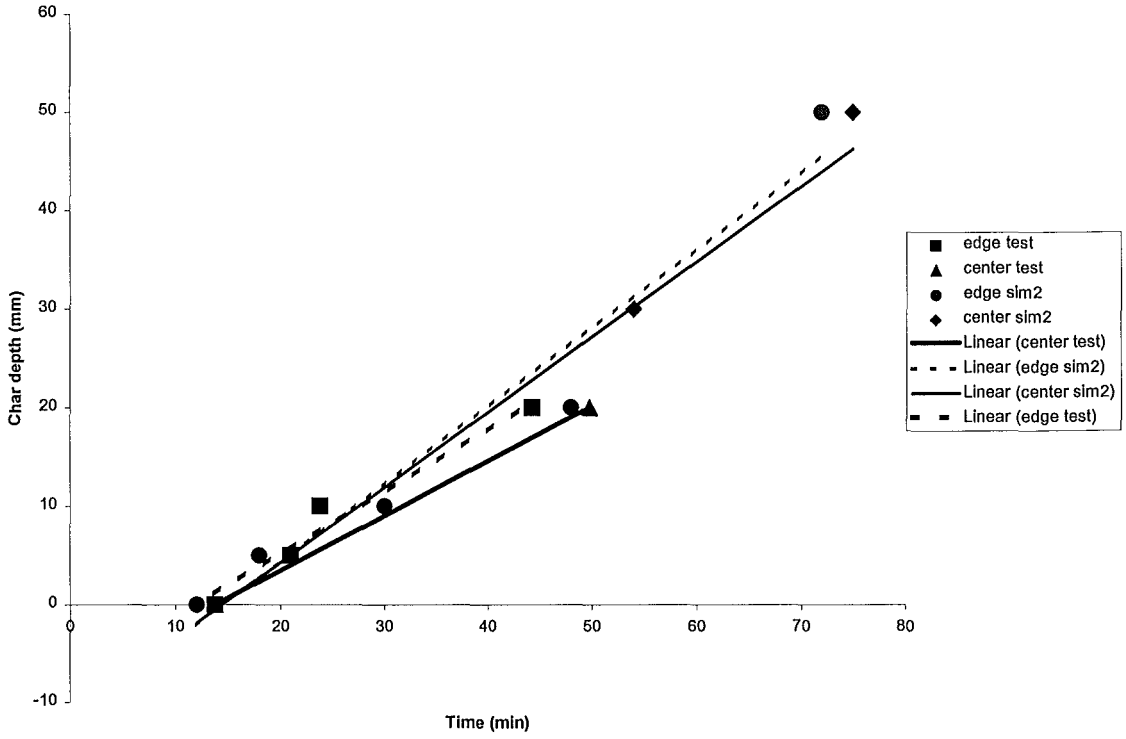


Figure 8.1.1.7: Char depth versus time for test 7 (9.5 mm).

The charring rate lines are linear regressions fitted to the data plot. Figure 8.1.1.7 shows that the time to onset of char and the charring rate were similar in the cone calorimeter tests and in the simulations. This can also be concluded from figure 8.1.1.5,. Here it is shown that the temperature profiles in the wood stud for the simulations compared well with the test data up to temperatures when charring is assumed to start, i.e. 300 °C. However, the charring rate at the edges in the simulations were slightly higher than the charring rate in the test.

Figure 8.1.1.8, 8.1.1.9 and 8.1.10 shows the temperature (see figure 5.3.1) and char depth data for test 8 (16 mm) and the simulation of test 8 (16 mm). A 45*90 mm wood stud was protected with a layer of 16 mm Fyreline on each side and exposed to a radiation of 50 kW/m^2 in test 8.

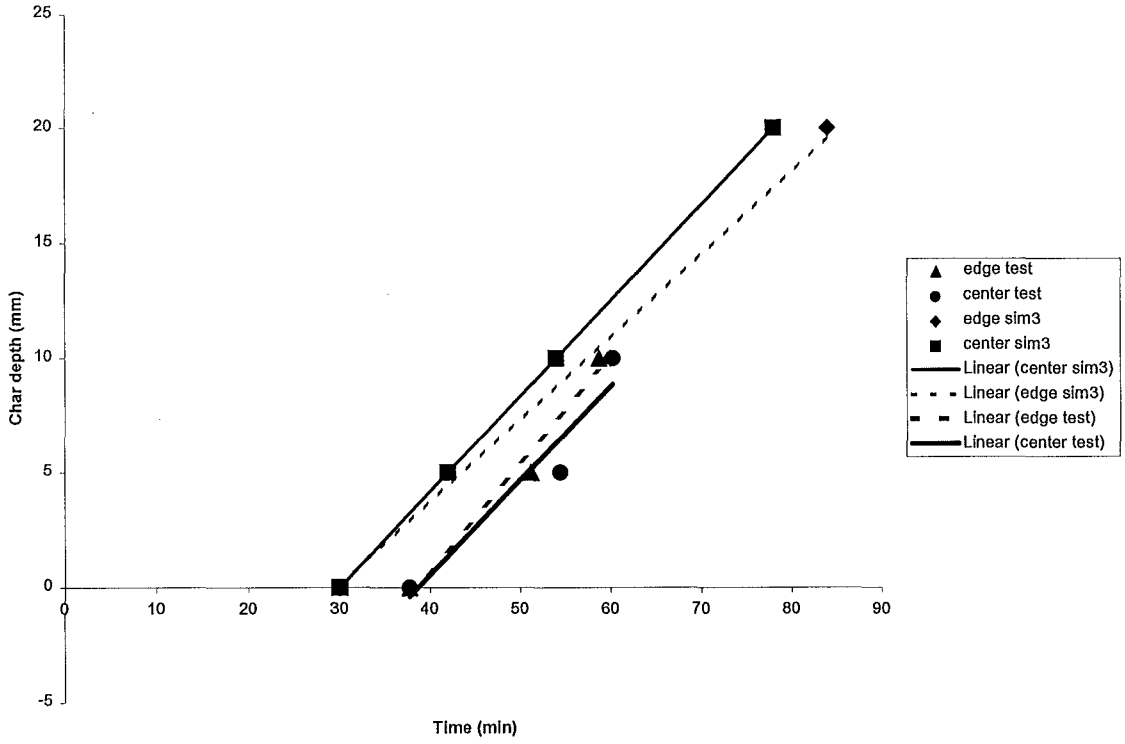


Figure 8.1.1.8: Char depth versus time for test 8 (16 mm) and simulation of test 8 (16 mm).

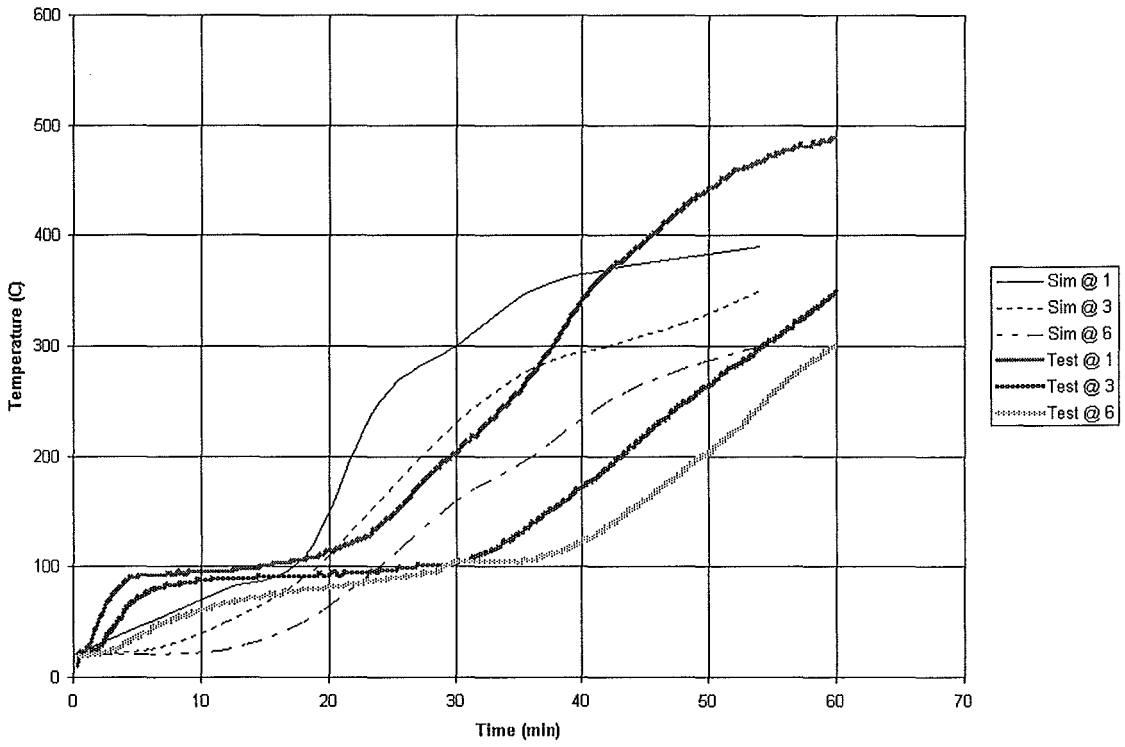


Figure 8.1.1.9: Temperature versus time in the centre of the wood stud for test 8. (16 mm)

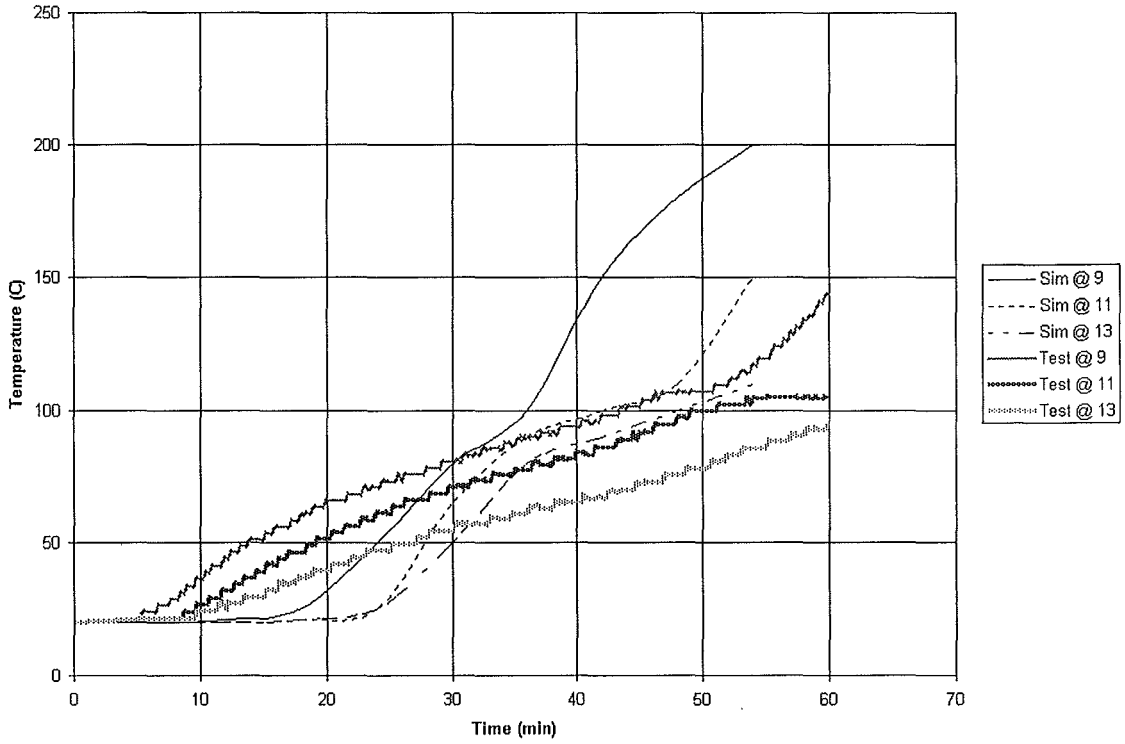


Figure 8.1.1.10: Temperature versus time in the centre of the wood stud for test 8 (16 mm).

Figure 8.1.1.8 shows that the onset of char occurred earlier in the simulation than in the bench-scale test. This can also be concluded from figure 8.1.1.9 and 8.1.1.10 , because the simulations overpredicted the temperature in the wood, which resulted in an overprediction of the charring rate.

Figure 8.1.1.9 and 8.1.1.10 exposed the fact that the simulations underpredicted the temperatures in the wood stud at positions close to the gypsum board after 400 °C.

8.1.2 Discussion

The simulations had a tendency to predict onset of char to occur at a time earlier than what the experimental data concluded. This occurred because the simulations overpredicted the temperature in the wood, which will result in a conservative prediction of the charring rate. This tendency was strongly dependent on the thickness of the gypsum boards. Hence, it was believed that the thermal properties of gypsum were not accurately modelled and could be changed to better represent the real material behaviour in the cone calorimeter.

The computer simulations generally underpredicted the temperatures in the char at positions close to the gypsum board. The wood stud close to the exposed gypsum surface shrank and developed large cracks during the experiments. This resulted in convection and radiation heat flux from the gypsum board and the cavity further into the wood stud. The convection and radiation increased the heat flux and temperature in the wood stud. This is why the high temperatures were measured at the surface of the wood stud. One way to model this would be to change the boundary and material geometry with the time. However, this is very complex and is not possible with the FEM models that were available.

The difference in the modelling results and the experimental behaviour can also be concluded from the data presented by Thomas (1997) and Cooper (1997). They believed that the models gave relatively good predictions. They were mainly interested in integrity failure and therefore did not investigate the mentioned dissimilar results further. However, this study shows the heat transfer model should be further calibrated to correctly predict the charring in the wood stud when onset of charring and charring rate is of main interest, since the results would otherwise be unconservative and unsafe.

The charring rates at the edges were higher in the simulations that in the bench-scale tests. The simulations assumed adiabatic boundaries without any heat losses. The cavity temperatures in the experiments were cooler than the temperatures predicted in the simulations, due to heat loss through the specimen holder and leakage openings.

8.2 Calibration with bench-scale tests

8.2.1 Calibrated thermal properties

The model was calibrated to simulate the onset of char and charring rate more accurately. The specific heat for gypsum for the 12.5 mm Fyreline gypsum board and the 16 mm Fyreline gypsum board were changed to the values that are displayed in figure 8.2.1.1 and 8.2.1.2.

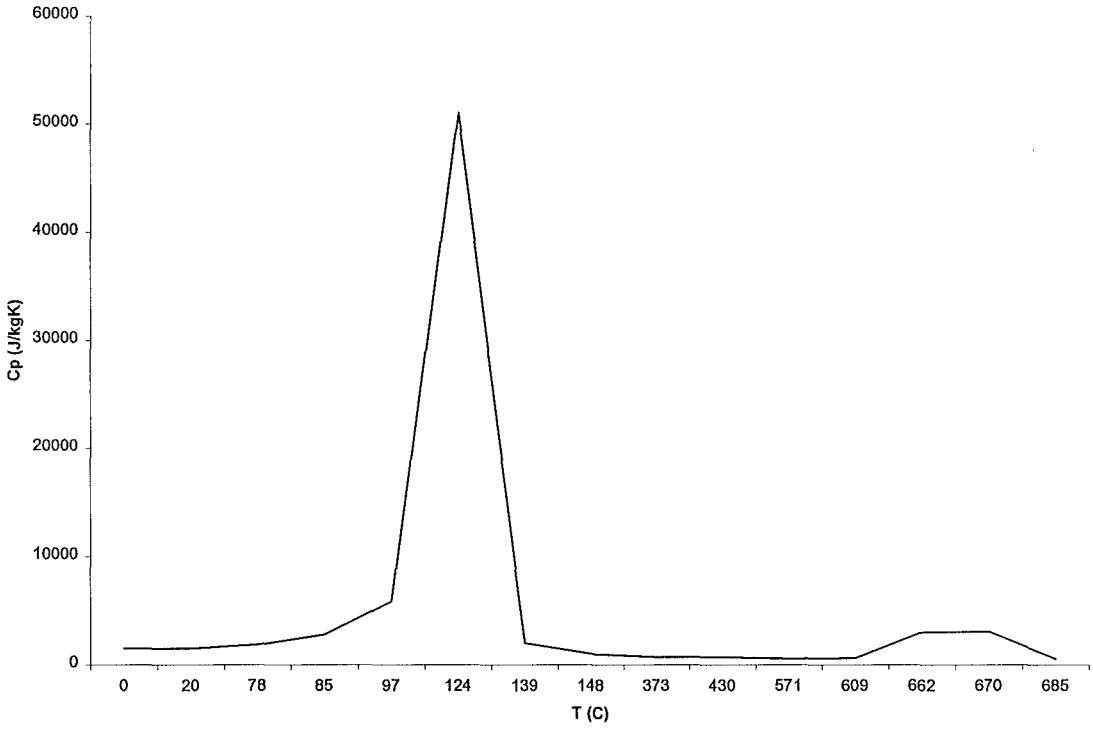


Figure 8.2.1.1: Calibrated specific heat for the 12.5 mm gypsum board.

Figure 8.2.1.1 shows the calibrated specific heat for the 12.5 mm gypsum board. The peak for specific heat of gypsum was increased from 19 kJ/kgK to 52 kJ/kgK.

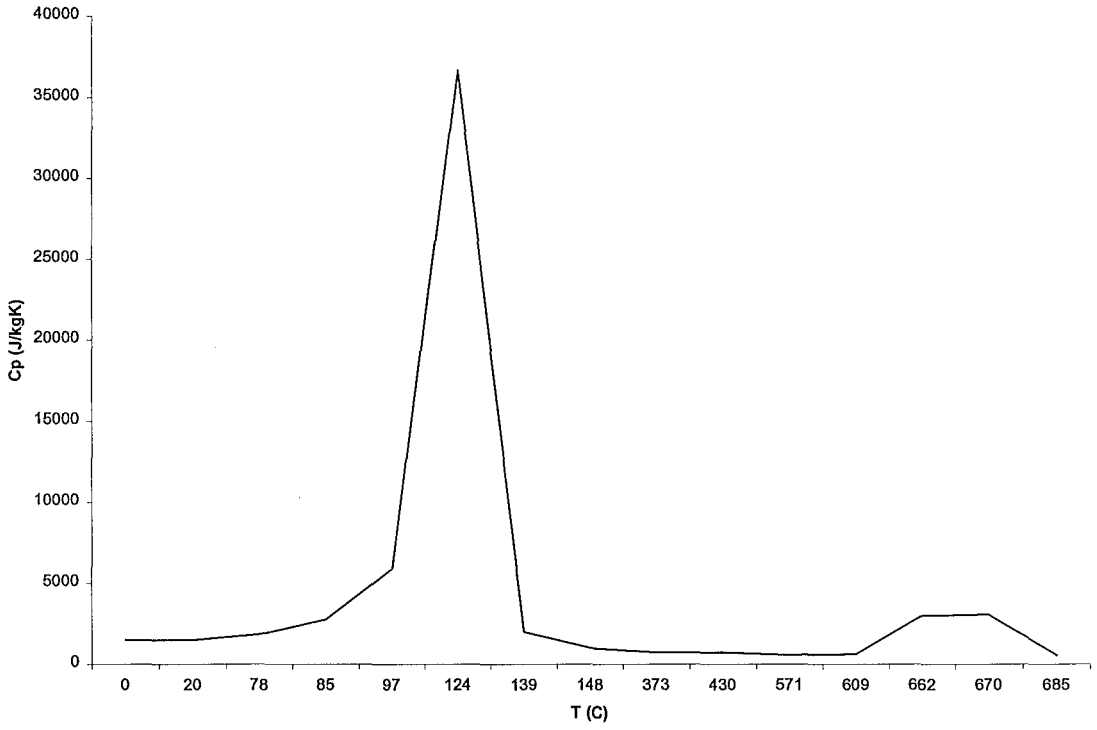


Figure 8.2.1.2: Calibrated specific heat for the 16 mm gypsum board.

Figure 8.2.1.2 shows the calibrated specific heat for the 16 mm gypsum board. The peak for specific heat of gypsum was increased from 19 kJ/kgK to 37 kJ/kgK.

The thermal properties for the 9.5 mm gypsum board were not calibrated since, it was believed that the simulations compared fairly well with the experimental results, i.e. when the onset of char and charring rate were considered.

8.2.2 Results

The temperature profiles for the thermocouple placements (see figure 5.3.1) are plotted in figure 8.2.2.1 and figure 8.2.2.2 for test 2 and for the calibrated simulation of test 2. A 45*90 mm wood stud was protected with a layer of 12.5 mm Fyreline on each side and exposed to a radiation of 50 kW/m^2 in test 2. See figure 5.3.1 for thermocouple placement.

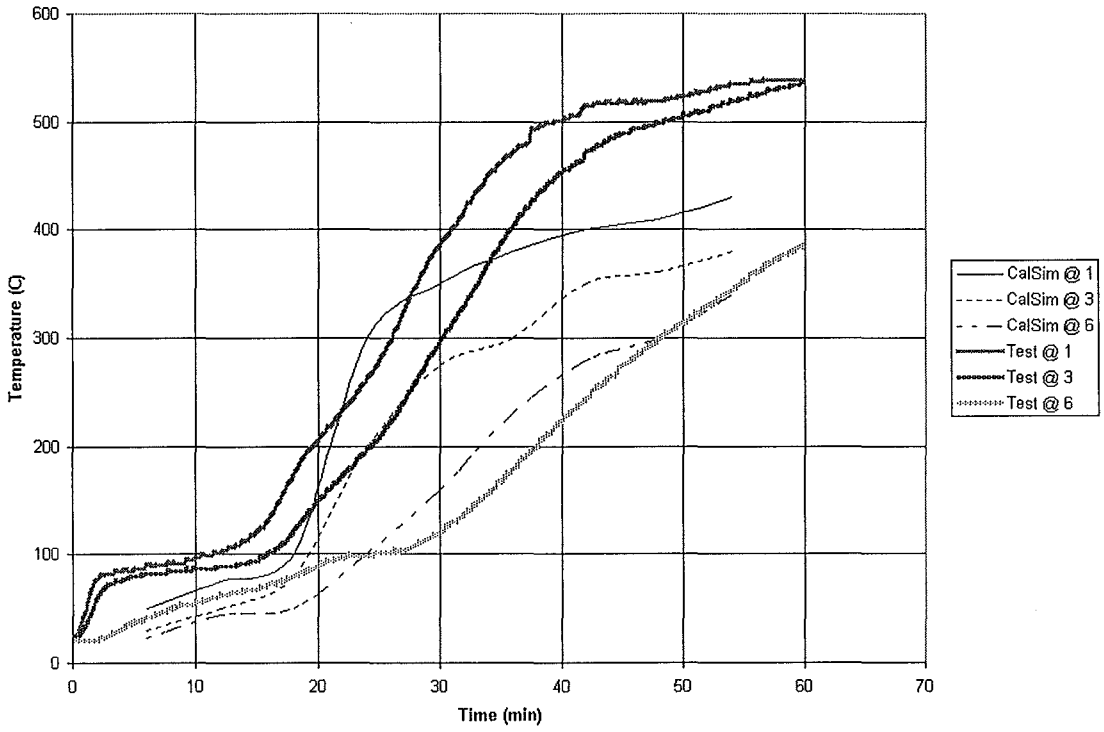


Figure 8.2.2.1: Temperature versus time for test 2 (12.5 mm) and the calibrated simulation of test 2 (12.5 mm).

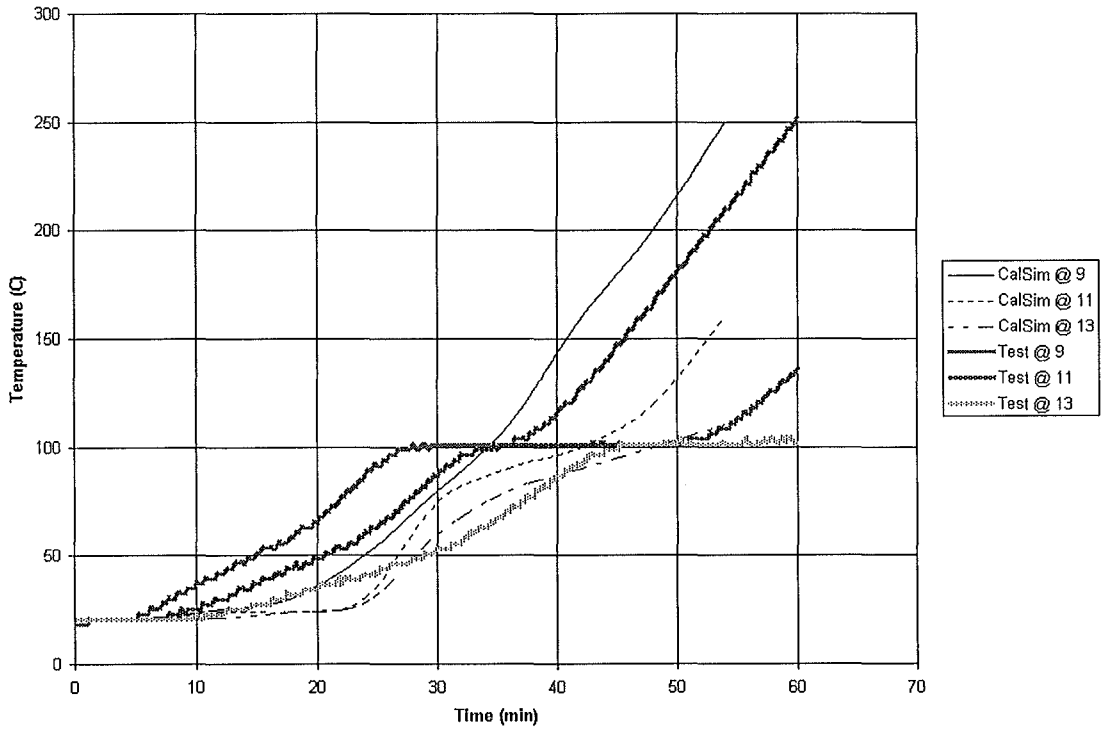


Figure 8.2.2.2: Temperature versus time for test 2 (12.5 mm) and the calibrated simulation of test 2 (12.5 mm).

Figures 8.2.2.1 and 8.2.2.2 show that the calibrated gypsum properties for the 12.5 mm Fyreline gypsum board resulted in a good prediction of the temperature in the wood stud up to 400 °C. The temperature in the wood stud was too low in the simulations after 400 °C at positions in the wood stud close to the exposed board. However, this does not matter when the onset of char and charring rate is of main interest. The char depth versus time for test 2 (12.5 mm) and the calibrated simulation of test 2 (12.5 mm)is presented in figure 8.2.2.3.

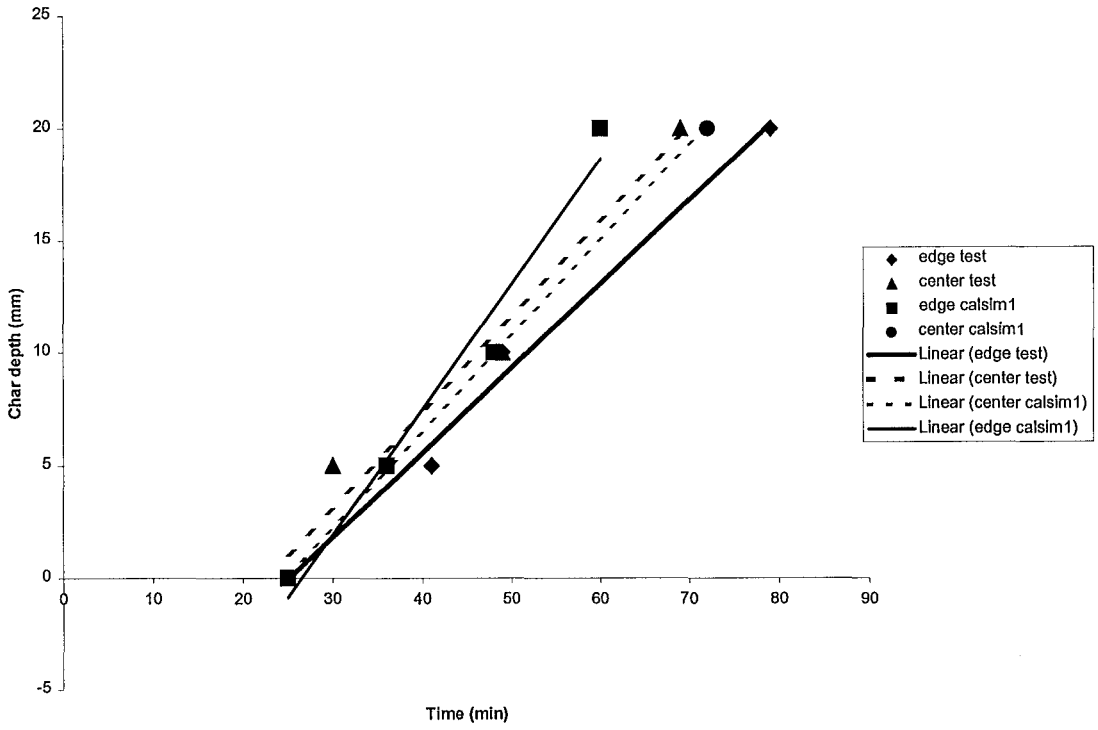


Figure 8.2.2.3: Char depth versus time for test 2 (12.5 mm) and the calibrated simulation of test 2 (12.5 mm).

The charring rate lines are linear regressions fitted to the data plot. The onset of char and the charring rate at the centre of the wood stud were comparable for the test and the calibrated simulation, since the lines were equally steep. The charring at the edges of the wood stud progressed slightly faster in the simulation after 35 minutes because the edge charring line for the calibrated simulation is steeper than the edge charring line for the test.

The temperature versus time for test 8 and the calibrated simulation of test 8 are plotted in figure 8.2.2.4 and 8.2.2.5. A wall assembly with a wood stud protected with one layer of 16 mm Fyreline gypsum board were used in test 8. See also figure 5.3.1 for thermocouple placement mentioned in the figures.

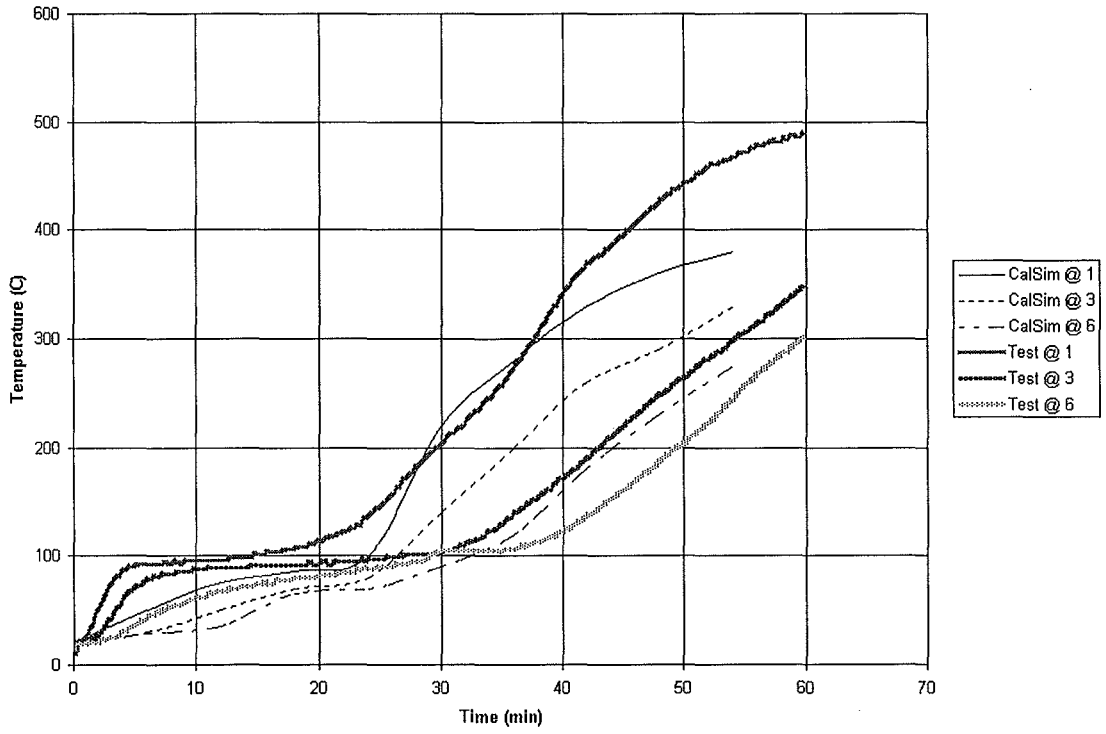


Figure 8.2.2.4: Temperature versus time for test 8 (16 mm) and the calibrated simulation of test 8 (16 mm).

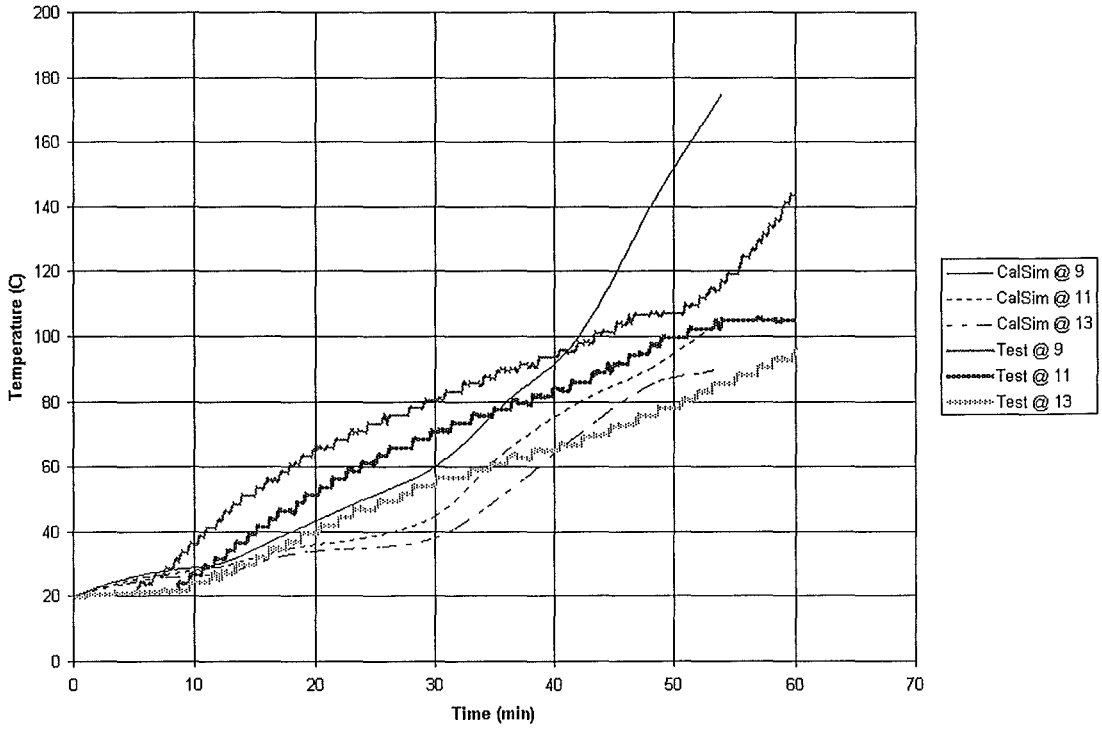


Figure 8.2.2.5: Temperature versus time for test 8 (16 mm) and the calibrated simulation of test 8 (16 mm).

The calibrated simulations for the 16 mm Fyreline board gave similar temperature results as the experimental data in the wood (see figure 8.2.2.4 and 8.2.2.5). The simulations slightly underpredicted the temperature in the char. Nevertheless, the charring can still be predicted, as shown in figure 8.2.2.6, which displays the char depth versus time for test 8 and for the calibrated simulation of test 8.

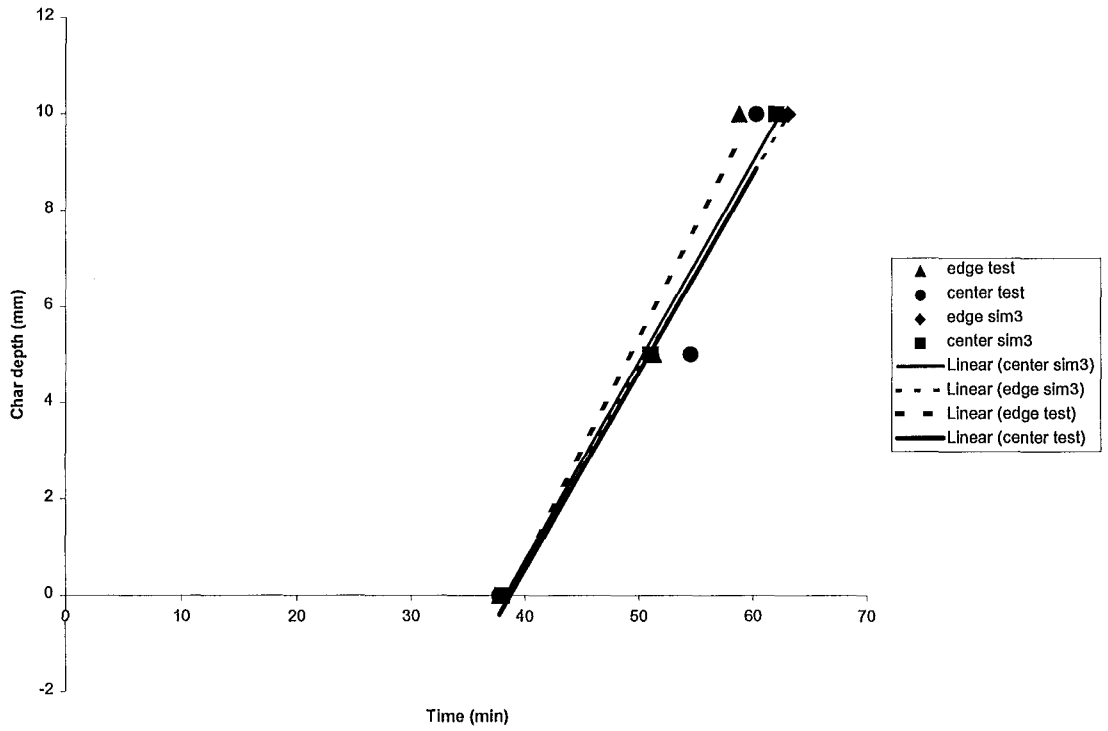


Figure 8.2.2.6: Char depth versus time for test 8 (16 mm) and for the calibrated simulation of test 8 (16 mm).

The lines are linear regressions fitted to the data plot. Figure 8.2.2.6 shows that the calibrated simulation resulted in a good agreement with the experimental charring data.

8.2.3 Discussion

The calibrated thermal properties gave results that agreed better with the experimental measurements at temperatures in the wood. The specific heat proved to be crucial for the calibration to fit the charring patterns. The calibrated values of the specific heat were also strongly dependent on the board thickness.

8.3 Simulation of full-scale tests

8.3.1 Results

The calibrated thermal properties derived in paragraph 8.2 were used to simulate the furnace tests that were earlier discussed in paragraph 6.1. The full-scale test data were extracted from Thomas (1997). Figure 8.3.1.1 shows the results from the test and for the simulation of a full-scale wall assembly. The latter being constructed of 45*90 mm wood studs and one sheet of 12.5 mm gypsum Fyreline on each side.

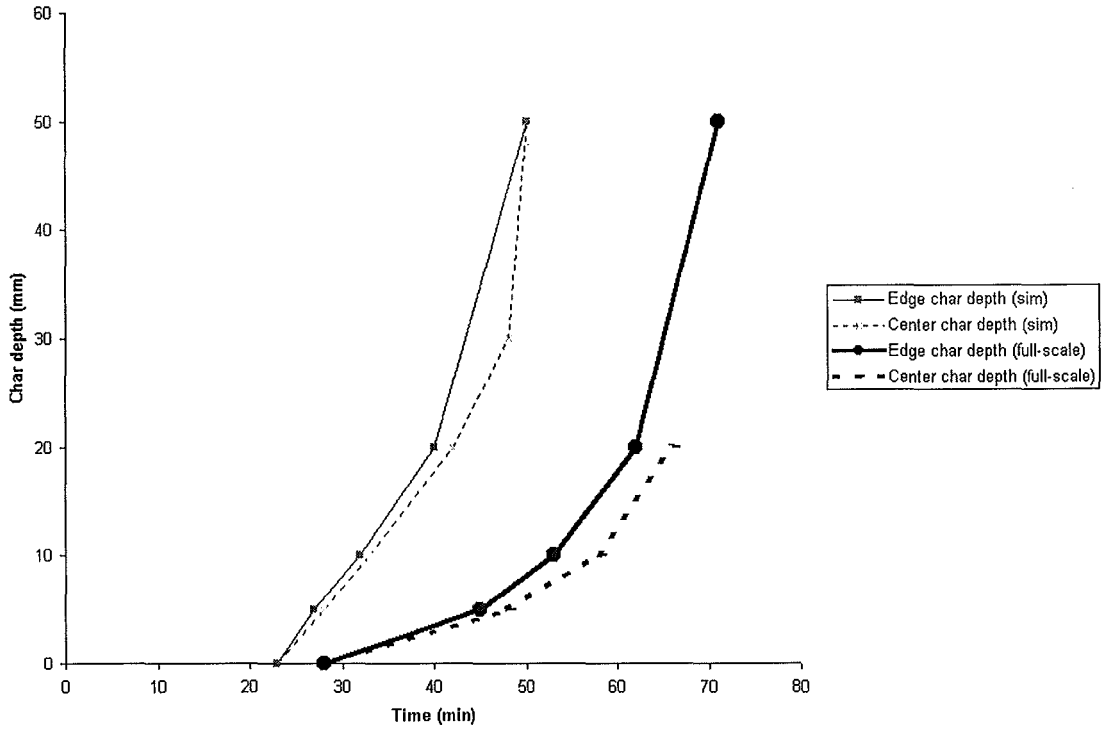


Figure 8.3.1.1: Char depth versus time for wall assembly protected with a 12.5 mm Fyreline on each side.

It can be concluded from figure 8.3.1.1 that the onset of char occurred earlier in the simulation than in the furnace test. The charring rate was comparable for the simulation and for the furnace test since the slope of the lines followed the same pattern.

The tendency to overpredict the time to onset of char and to accurately predict the charring rate with the computer simulations, was also discovered in the two other furnace tests, which were simulated. This can be concluded from figure 8.3.1.1 and 8.3.1.2, which show the results from furnace tests and the simulation of furnace tests.

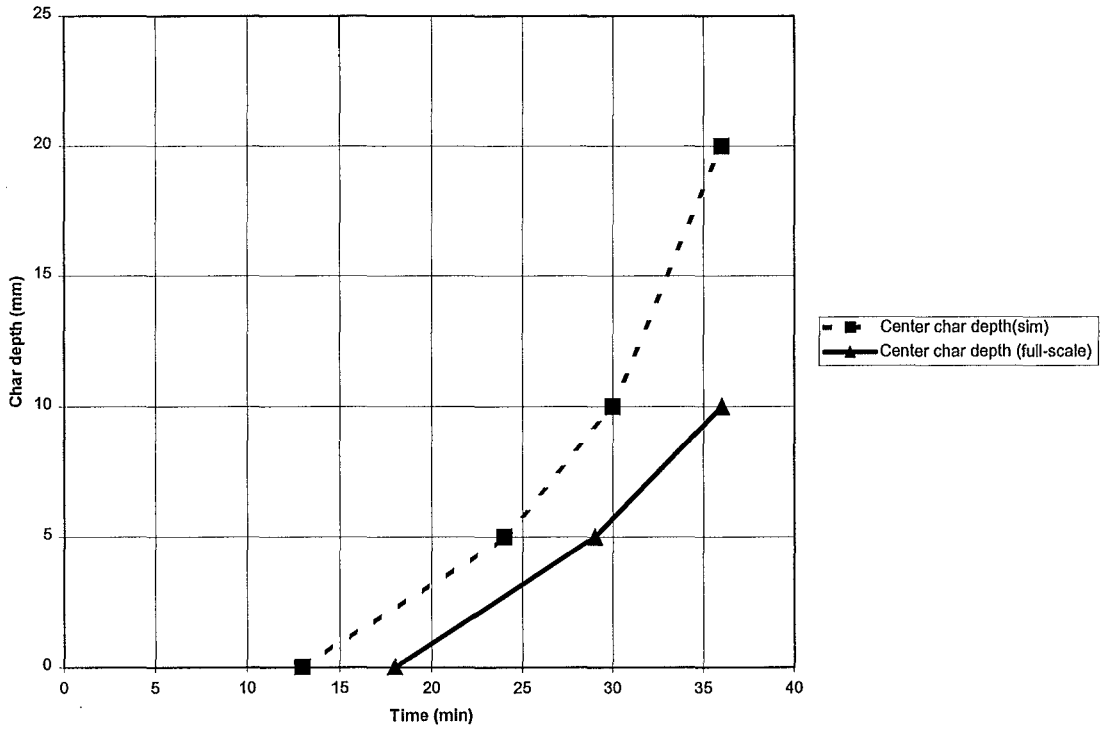


Figure 8.3.1.1: Char depth versus time for a wall assembly protected with a 9.5 mm Fyreline on each side.

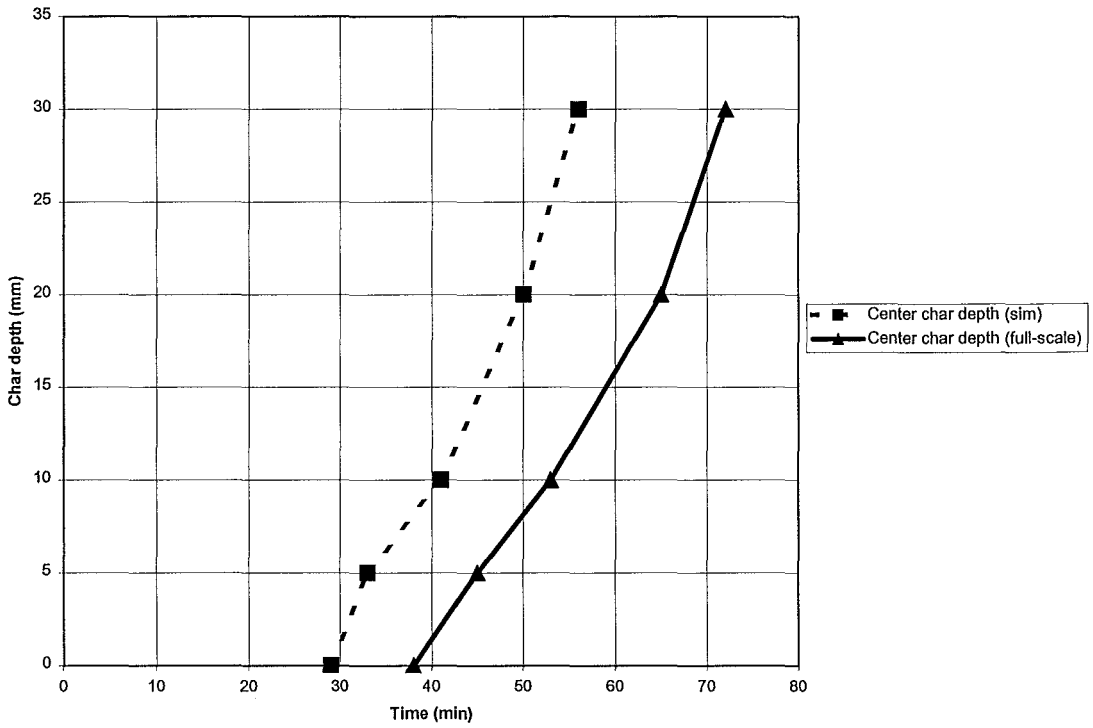


Figure 8.3.1.2: Char depth versus time for a wall assembly protected with a 16 mm Fyreline on each side.

8.3.2 Discussion

The simulations of the furnace tests overpredicted the start of charring. The specific heat of gypsum was calibrated using test results where the specimens were tested with a constant heat flux of 50 kW/m^2. Mehaffey et al (1997) showed that the peaks of the apparent specific heat of gypsum were dependent on the scanning rate, i.e. the heating rate of the gypsum. The heating rate of gypsum in the furnace differs from the heating rate achieved in the cone calorimeter tests. Thus it is not possible to calibrate the specific heat at a heating rate different from the test that is to be simulated. This is shown in figure 8.3.2.1.

Figure 8.3.2.1 displays the results from a simulation, where the specific heat of gypsum has been calibrated at 50 kW/m^2 and been used to simulate the test at 100

kW/m^2. The wood stud was protected with one layer of 12.5 mm Fyreline gypsum board.

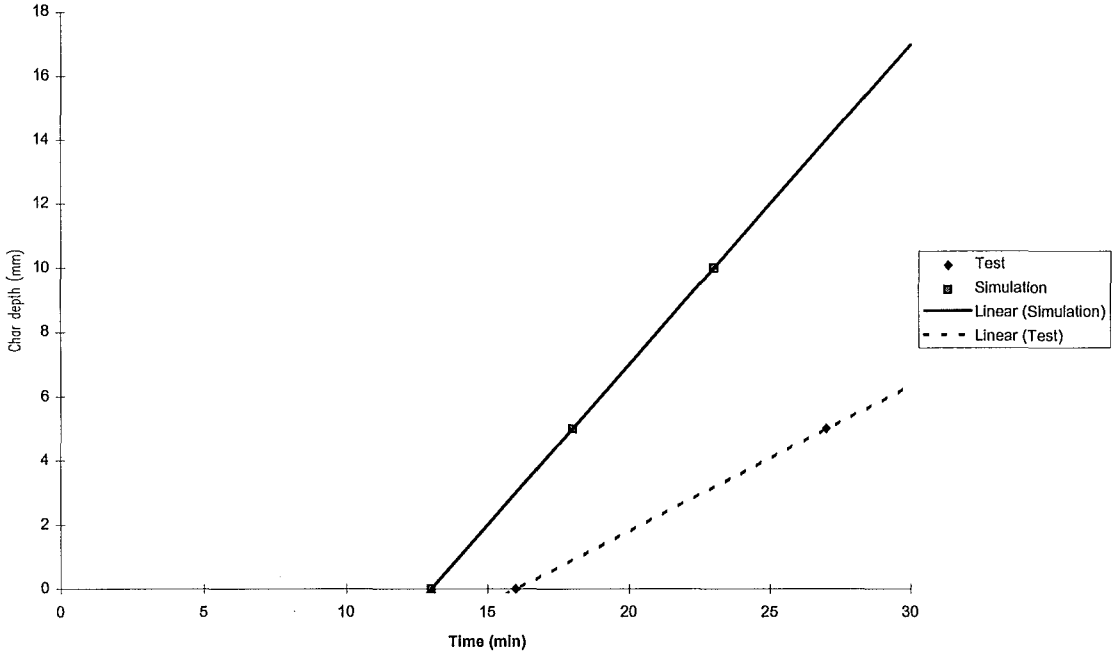


Figure 8.3.2.1: Char depth versus time for test (100 kW/m2) and simulation.

Figure 8.3.2.1 shows clearly that the onset of charring and the charring rate could not be predicted despite the fact that the specific heat of gypsum had earlier been calibrated against the 50 kW/m^2 experiment. The heating rate of gypsum was different in the two tests. Consequently, the bench-scale testing environment must provide a heating rate of gypsum that is similar to the one achieved in the furnace tests to calibrate an apparent specific heat of gypsum for accurate furnace simulations.

8.4 Conclusions

The uncalibrated simulations overpredicted the temperature in the wood, which resulted in a conservative prediction of the charring rate. This tendency was strongly dependent on the thickness of the gypsum boards. The modelling with the calibrated specific heat of gypsum gave results that agreed better with the experimental measurements at temperatures in the wood.

The computer simulations generally underpredicted the temperatures in the char, at positions close to the gypsum board, mainly because of the shrinkage and cracking behaviour in the wood stud. It would probably be possible to model this by changing the boundary and material geometry with the time. However, this is very complex and is not possible with the FEM models that were available. Further research is recommended to incorporate a mass transfer model in the available heat transfer models.

The adiabatic environment in the simulations predicted a slightly hotter cavity than measured in the tests, which resulted in somewhat higher edge charring rates in the simulations.

The testing environment for measuring thermal properties of gypsum must provide a heating rate of gypsum that is similar to the one achieved in the furnace tests to calibrate an apparent specific heat of gypsum for accurate furnace simulations.

The simulated charring rate corresponded well with the charring rates that were measured in the furnace tests. This occurred since the charring rate was strongly dependent on the heat flux, which increased with time with similar rates as those achieved in the full-scale tests.

Although the simulations of the furnace tests were inaccurate, they were conservative and can be used to predict crude charring patterns.

Chapter 9 Conclusions

9.1 Bench-scale testing

The following conclusions can be drawn from the cone calorimeter tests performed in this study:

- It has been shown that it is not possible to use a constant heat flux in the cone calorimeter to achieve similar charring rate and time to onset of char, as those observed in full-scale experiments.

- The charring rate was strongly dependent on the board type ,but not greatly affected by the board thickness.

- The charring rate increases and the time to onset of char decreases with the increasing heat flux from the conical radiator.

- The centre charring rate is higher when the cavity is insulated than if the void is uninsulated. However, the insulation protects the sides of the stud from the hot cavity gases and therefore decreases the edge charring effects. An insulated cavity, though, results in a hotter exposed gypsum board and hence a premature board failure.

- The charring rate is not greatly affected by the joint width. The onset of charring is dependent on the joint width.

- The burning paper lining will not considerably affect the heat transfer in a wall construction.

9.2 Heat transfer model

The following conclusions can be drawn from the heat transfer modeling:

- The thermal properties recommended in the literature overpredicted the temperature in the wood stud, which resulted in an overprediction of the charring rate.

- A computer model can be used to calibrate the specific heat of gypsum to agree better with the wood temperatures measured in the experiments.

- The apparent specific heat of gypsum needs to be calibrated against the same board type, board thickness, and fire exposure as those intended to be simulated for accurate simulations of time to onset of char.

- The simulated charring rate corresponded well with the charring rates that were measured in the furnace tests.

9.3 Further work

The bench-scale testing method can be explored further to provide heating conditions closer to those achieved in the full-scale furnace tests.

It is suggested to further research the cracking behaviour of gypsum plasterboards, to investigate the possibility of using a temperature criteria in engineering calculations to estimate the time when the gypsum board will fall off the wall.

Further research is recommended to enable the accurate computer simulations of the time to onset of char for different board types, board thicknesses and fire exposures, such as parametric fires.

Acknowledgements

I would like to sincerely thank and show my deepest appreciation to the following people and organisations. Their support and understanding was crucial for me during the production of this work and the completion of my Masters Degree in Fire Engineering.

* Professor Andy Buchanan of The University of Canterbury, who came up with the initial project idea, and provided invaluable technical advice and superb supervision during the whole project. Thanks also for talking me into leaving Sweden and coming to New Zealand to The University of Canterbury. It was a great experience.

* Gålöstiftelsen for providing the Gemzeus scholarship, which financed my tuition fees and living expenses during the entire period.

* Civilingenjörsförbundet for providing a scholarship, which paid my travel expenses from Sweden to New Zealand.

* Mr Peter Collier of BRANZ for the initial advice on the experimental technique and other technical issues.

* Hans Gerlich of Winstone Wallboards for supplying the gypsum boards and for some introductory input.

* A big thanks to all the technical staff at the Civil Engineering lab for technical support during the testing. I would especially like to express my obligations to technician Mr Mike Weaver for writing the software to the data acquisition board and putting the hardware together.

* The other fire engineering students and especially Mr Andre Lovatt and Mr Ee Yii for friendship and support during the year.

* Miss Nicola Fairbrass for proof-reading this document and for the priceless emotional support during the times of the deepest frustration.

* My family back home in Sweden for all those supporting phonecalls and for helping me with practical things that I was not able to take care of during my leave. This would never have been possible without you. Thanks!

References

ASTM C 473 - 74. *Standards Methods for Physical testing of gypsum board products, gypsum lath, gypsum partition tile or block and recast reinforced gypsum slabs*. Obsolete standard. USA. pp 307-315.

Atreya, A. (1988) "Convection heat transfer". In: *The SFPE Handbook of Fire Protection Engineering*, Eds: P. DiNenno, C. Beyler, W. Walter, R. Custer, and J. Watts. Society of Fire Protection Engineers and National Fire Protection Association, Quincy, MA, USA. pp 1-65-1-91.

Blanchard, J. A. C., and Harmathy, T. Z. (1964) *Fire Study No 14*. Division of Building Research, National Research Council of Canada, Ottawa, Canada.

Buchanan, B., and Gerlich, J.T. (1997) Fire performance of gypsum plasterboard. *Proc IPENZ Annual Conference (Wellington, New Zealand)*, Feb 7-10.

Clancy, P. (1996) A model for predicting the probability of failure of wood framed walls and floors in real fire. *Proc 3rd International Scientific Conference (Slovak republic)*, May 6-9. pp 33-42.

Collier, P. (1996) A model for predicting the fire resisting performance of small scale cavity walls in realistic fires. *Fire Technology*. vol **32**. pp 120 136.

Cooper, L. (1997) The thermal response of gypsum panel/steel stud wall systems to exposed to fire environments - a simulation for use in zone type fire models. *NISTIR 6027*. National Institute of Science and Technology, Gaithersburgh, MD, USA.

Croft, D.R. (1977) *Heat transfer calculations using finite difference equations*. Applied Sience Publisher, Barking, UK.

Fire Safety Design (1997) *TCD Manual.* Fire Safety Design, Ostra Martens gata, Lund, Sweden.

Fredlund, B. (1988) *A model for heat and mass transfer in timber structures during fire.* Department of Fire Safety Engineering, Institute of Science and Technology, Lund University, Lund, Sweden.

Friedman, R. (1997) "Theory of fire extinguishment". In: *Fire Protection Handbook,* 18th edition. National Fire Protection Association, Quincy, MA, USA. pp 1-72-1-82.

Goncalves, T., Jong, F., Clancy, P., and Poynter, W. (1996) Mechanical properties of fire rated gypsum board. Research report. Department of Civil and Building Engineering, Victoria University of Technology, Victoria, Melbourne, Australia.

Holmstedt, G., and Yan, Z. (1997a) Fast, narrow-band computer model for radiation calculations. *Numerical heat transfer.* vol **31**. pp 61-71.

Holmstedt, G., and Yan, Z. (1997b) CFD simulations of upward flame spread over fuel surface. *Proc 5th International Symposium on Fire Safety Sience (Melbourne, Australia)*, March.

Janssens, M. (1994) Thermo-physical properties for wood pyrolysis models. *Proc Pacific Timber Engineering Conference (Gold Coast, Australia).* pp 607-618.

Kay, T.R., Kirby, B.R., and Preston, R.R. (1996) Calculation of the heating rate of an unprotected steel member in a standard fire resistance test. *Fire Safety Journal.* vol **26**. pp 327-350.

Konig, J. and Noren, J. (1991), Fire tests on timber frame members under pure bending. *Proc International Timber Engineering Conference (London, England).*

Konig, J. (1994), Axially loaded timber frame walls exposed to fire on one side. *Proc Pacific Timber Engineering Conference (Gold Coast, Australia).*

Lazaros, D., and Ostman, B. (1996), Charring of protected wood studs, accepted for publication in *Fire Technology.*

Mehaffey, J.R., Cuerrier, P., and Carisse, G. (1994) A model for predicting heat transfer through gypsum-board/wood-stud walls exposed to fire. *Fire and Materials.* Vol **18**. pp 297-305.

O'Connor, D.J.., Silcock, G.W.H., and Morris, B. (1996) Furnace heat transfer process applied to a strategy for the fire testing of reduce scale structural models. *Fire Safety Journal.* vol **27**. pp 1-22.

O NORM B 3410. (1996) *Gipskartonplatten - Arten, Anforderungen, Prufungen, Normkennzeichnung.* Austria.

Paul, K.T. (1994) Cone Calorimeter: Initial Experiences of Calibration and Use. *Fire Safety Journal.* vol **22**. pp 67-87..

Richardson, L.R., and Venasse, R.G. (1989) Fire resistance joints in gypsum wallboard. *Fire and materials.* Vol **14**. pp 139-143.

Sterner, E., and Wickstrom, U. (1990), TASEF - Temperature analysis of structures exposed to fire. *Fire Technology SP Report 1990:05*, Swedish National Testing Institute, Boras, Sweden.

Sultan, M.A., and Lougheed, G.D. (1994) The effects of insulation on fire resistance of small-scale gypsum plasterboard assemblies. *Proc 3rd International Fire and Material Conference (Washington DC, USA).*

Sultan, M. A. (1996) A model for heat transfer through noninsulated steel-stud/gypsum-board wall assemblies exposed to fire. *Fire Technology*. vol **32**. pp 239 - 257.

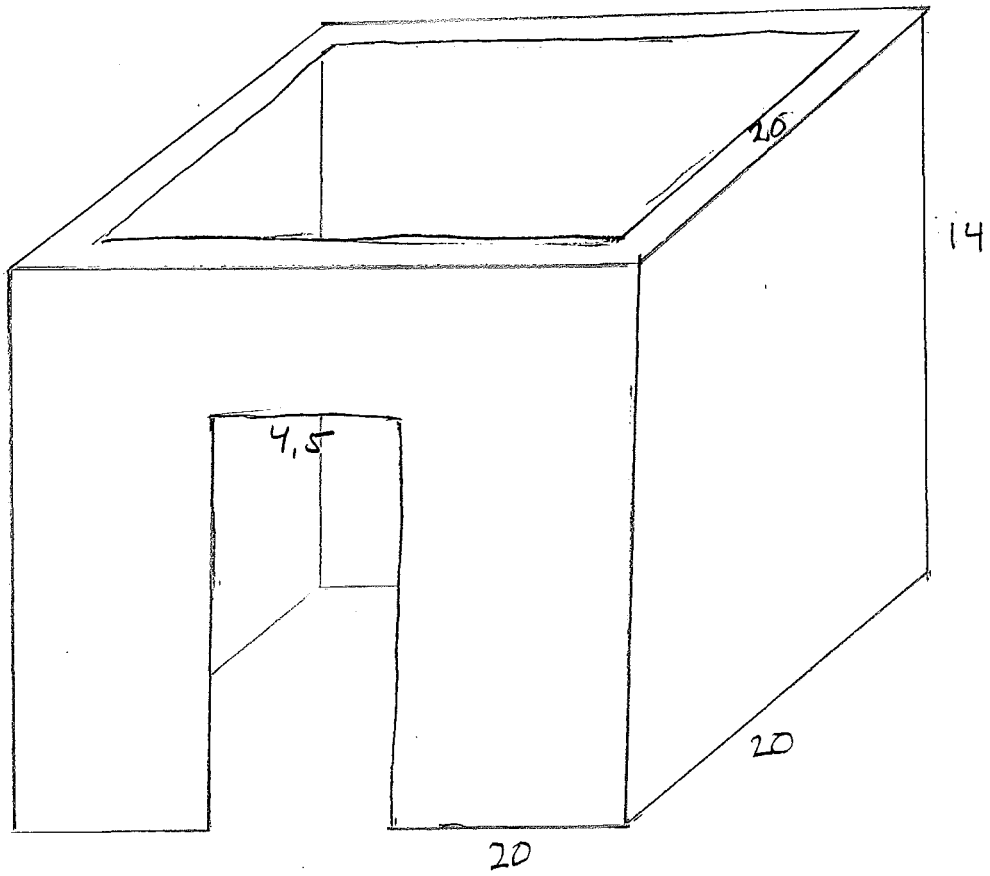
Thomas, G. (1997) Fire resistance of light timber framed walls and floors. *Fire Research Report 97/7*. University of Canterbury, Christchurch, New Zealand.

Tucker, A. (1997), *Heat and Mass Transfer with HVAC applications*. University of Canterbury, Christchurch, New Zealand.

Appendix A Construction drawings of specimen holder

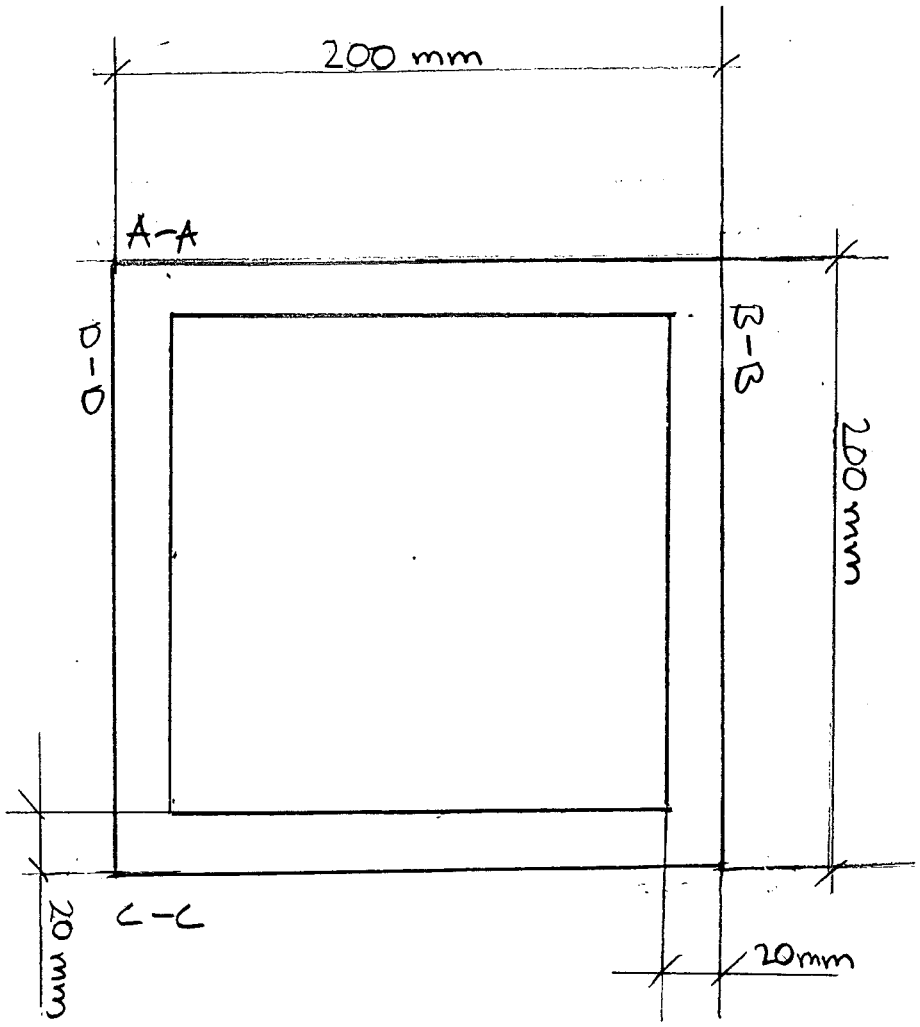
SPECIMEN HOLDER (CM)

3-D SKETCH



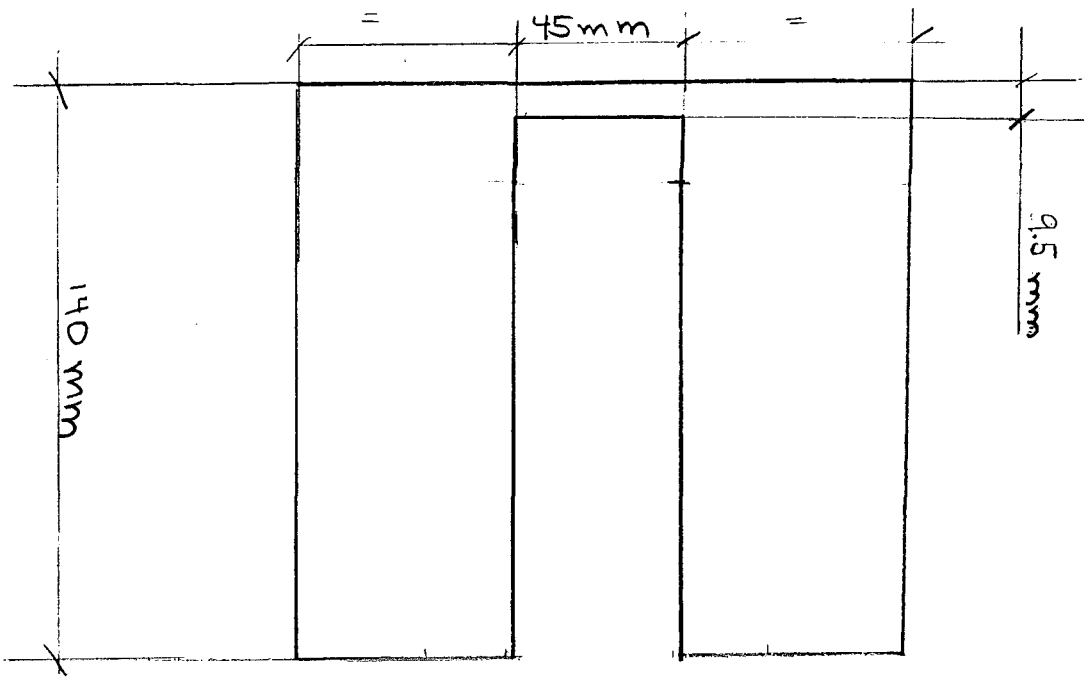
SPECIMEN HOLDER SCALE 1:2

TOP SECTION

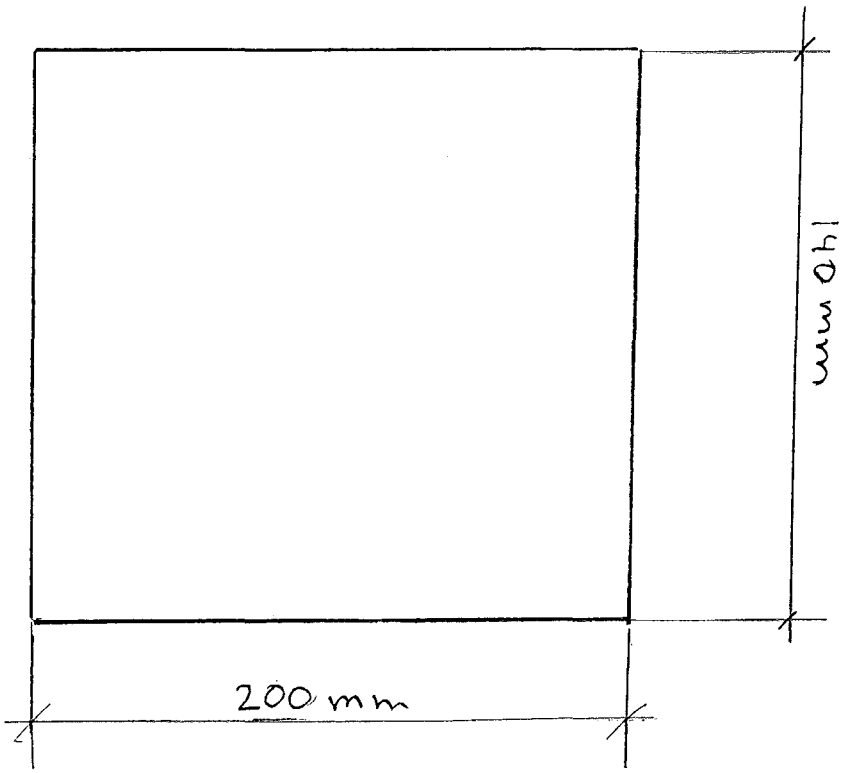


SPECIMEN HOLDER SCALE 1:2

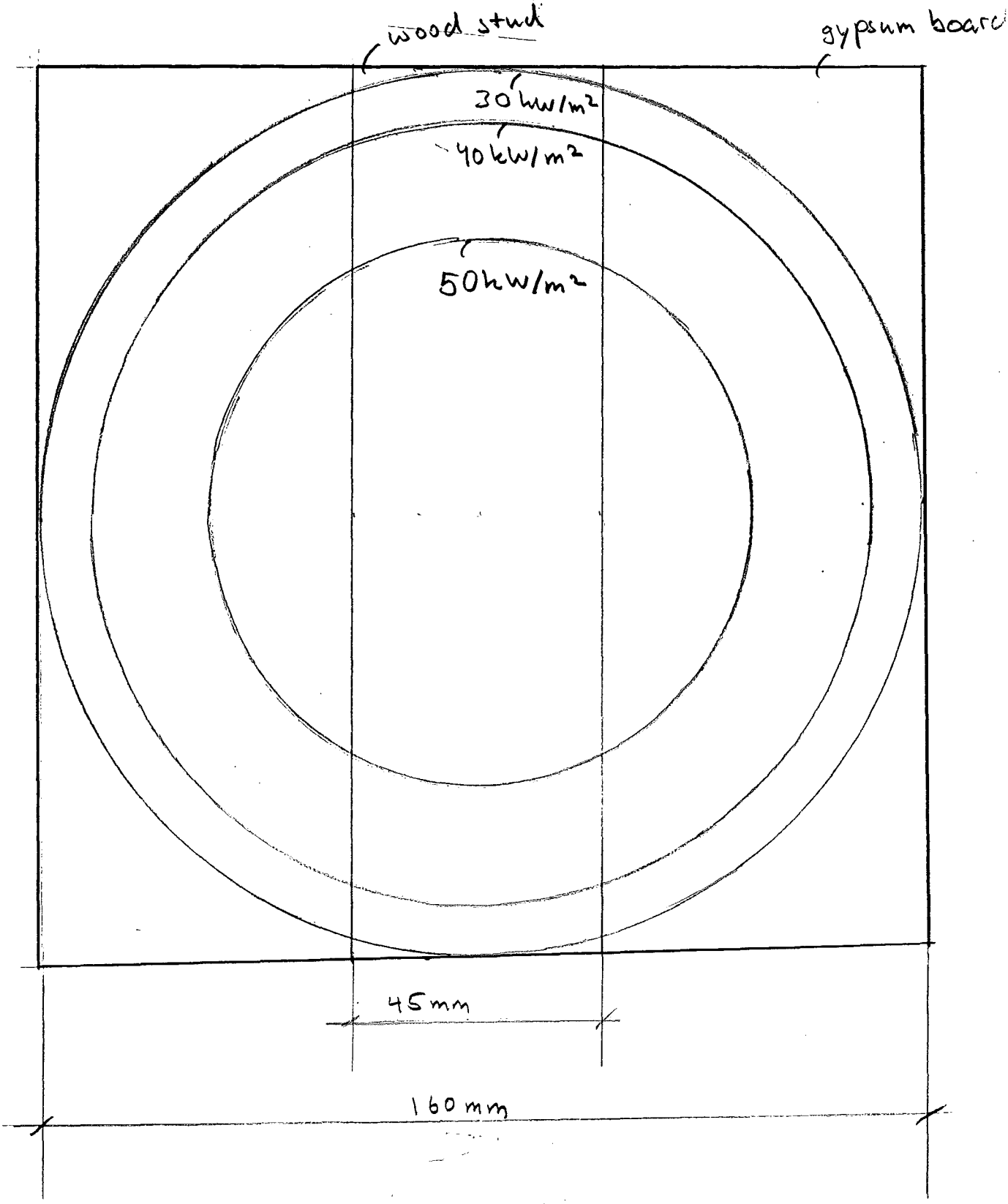
SIDE SECTION (A-A)



SIDE SECTION (B-B, C-C, D-D)



Appendix B Heat flux over the gypsum board surface



Appendix C Thermocouple data

Test 1

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	9.8	19.2	19.2	23.9	-298	19.2	16.8	16.8	16.8	16.8	-	2.7	16.8	16.8	16.8
0.5	22	22	22	22	-304.8	19.6	17.2	17.2	17.2	17.2	-	5.5	17.2	17.2	17.2
0.75	22	22	22	24.3	-304.8	19.6	17.2	17.2	17.2	17.2	-	7.8	17.2	17.2	17.2
1	26.7	22	22	24.3	-304.8	19.6	17.2	17.2	17.2	17.2	-	10.2	17.2	17.2	17.2
1.25	34	22.2	22.2	26.9	-304.6	19.8	17.4	17.4	17.4	17.4	-	12.7	17.4	17.4	17.4
1.5	41.3	24.7	22.4	29.5	-300.8	20	17.6	17.6	17.6	17.6	-	12.9	17.6	17.6	17.6
1.75	48.4	24.7	22.4	34.2	-300.8	20	17.6	17.6	17.6	17.6	-	15.3	17.6	17.6	17.6
2	55.6	27.1	24.7	38.9	-300.8	22.4	17.6	17.6	17.6	17.6	-	15.3	17.6	17.6	17.6
2.25	60.3	29.5	27.1	43.7	-300.8	22.4	17.6	17.6	17.6	17.6	-	15.3	17.6	17.6	17.6
2.5	67.5	31.8	29.5	46	-297.2	22.4	20	17.6	17.6	17.6	-	15.3	17.6	17.6	17.6
2.75	69.9	36.6	31.8	50.8	-293.7	24.7	20	17.6	17.6	17.6	-	15.3	17.6	17.6	17.6
3	74.8	39.1	36.8	53.4	-293.5	24.9	20.2	17.8	17.8	17.8	-	15.5	17.8	17.8	17.8
3.25	77.2	41.5	39.1	58.1	-293.5	27.3	20.2	17.8	17.8	17.8	-	15.5	17.8	17.8	17.8
3.5	79.6	43.9	41.5	60.5	-293.5	29.7	20.2	17.8	17.8	17.8	-	15.5	17.8	17.8	17.8
3.75	79.8	46.4	41.7	60.7	-289.9	29.9	22.8	18	18	18	-	15.7	18	18	18
4	79.8	48.8	44.1	63.1	-289.9	32.2	20.4	20.4	18	18	-	15.7	18	18	18
4.25	82.2	51.2	46.4	65.5	-289.9	34.6	22.8	20.4	18	18	-	15.7	18	18	18
4.5	82.4	53.8	49	68.1	-286.2	34.8	23	18.2	18.2	18.2	-	15.9	18.2	18.2	18.2
4.75	84.6	53.6	51.2	70.3	-286.4	37	25.1	20.4	18	18	-	15.7	18	18	18
5	84.8	56.2	51.4	70.5	-286.2	39.5	25.3	20.6	18.2	18.2	-	15.9	18.2	18.2	18.2
5.25	84.8	58.5	53.8	70.5	-286.2	39.5	27.7	20.6	18.2	18.2	-	15.9	18.2	18.2	18.2
5.5	84.8	58.5	53.8	72.8	-286.2	41.9	27.7	23	18.2	18.2	-	18.2	18.2	18.2	18.2
5.75	85	61.1	56.4	73	-286	42.1	30.3	23.2	18.4	18.4	-	18.4	18.4	18.4	18.4
6	85	61.1	58.7	75.4	-282.6	44.5	30.3	23.2	18.4	18.4	-	18.4	18.4	18.4	18.4
6.25	85	63.5	58.7	75.4	-282.6	44.5	32.6	25.5	18.4	18.4	-	18.4	18.4	18.4	18.4
6.5	85	63.5	58.7	75.4	-282.6	46.8	30.3	23.2	18.4	18.4	-	16.1	18.4	18.4	18.4
6.75	85	63.5	58.7	75.4	-279.2	46.8	32.6	25.5	18.4	20.8	-	18.4	18.4	18.4	18.4
7	85	65.9	61.1	75.4	-279.2	49.2	35	25.5	18.4	20.8	-	18.4	18.4	18.4	18.4
7.25	85.2	66.1	61.3	75.6	-279	49.4	35.2	25.7	18.6	21	-	18.6	18.6	18.6	18.6
7.5	85.2	66.1	63.7	78	-279	49.4	35.2	28.1	18.6	21	-	18.6	18.6	18.6	18.6
7.75	85.2	66.1	63.7	78	-279	51.8	37.6	28.1	18.6	21	-	18.6	18.6	18.6	18.6
8	85.2	68.5	63.7	78	-275.7	51.8	37.6	28.1	18.6	21	-	18.6	18.6	18.6	18.6
8.25	85	68.3	63.5	77.8	-272.6	51.6	39.7	30.3	20.8	23.2	-	18.4	18.4	18.4	18.4
8.5	87.6	68.5	63.7	78	-272.4	54.2	39.9	30.5	21	23.4	-	18.6	18.6	18.6	18.6
8.75	87.6	70.9	63.7	78	-272.4	54.2	39.9	30.5	21	23.4	-	18.6	18.6	18.6	18.6
9	87.6	70.9	66.1	80.4	-269.1	54.2	39.9	30.5	21	23.4	-	18.6	18.6	18.6	18.6
9.25	87.8	71.1	66.3	78.2	-268.9	54.4	42.5	33	21.2	23.6	-	18.8	18.8	18.8	18.8
9.5	87.6	70.9	66.1	80.4	-269.1	54.2	42.3	35.2	21	23.4	-	18.6	18.6	18.6	18.6
9.75	87.8	71.1	66.3	80.6	-265.7	56.8	42.5	33	21.2	25.9	-	18.8	18.8	18.8	18.8
10	90.2	71.1	68.7	80.6	-265.7	56.8	44.9	33	23.6	25.9	-	18.8	18.8	18.8	18.8
10.25	90.4	73.6	68.9	80.8	-262.2	57	45.1	35.6	23.8	26.1	-	19	19	19	19
10.5	90	73.2	68.5	80.4	-262.6	58.9	44.7	35.2	23.4	25.7	-	18.6	18.6	18.6	18.6
10.75	90.2	73.4	68.7	80.6	-259.3	59.1	47.2	35.4	23.6	28.3	-	21.2	18.8	18.8	18.8
11	90.2	73.4	68.7	83	-256.1	59.1	47.2	37.8	23.6	28.3	-	21.2	18.8	18.8	18.8
11.25	92.8	73.6	71.3	83.2	-252.8	59.3	47.4	35.6	23.8	28.5	-	21.4	19	19	19
11.5	92.8	76	71.3	83.2	-252.8	61.7	49.8	38	26.1	28.5	-	21.4	19	19	19
11.75	92.8	76	71.3	83.2	-249.7	61.7	49.8	40.3	26.1	28.5	-	21.4	19	19	19
12	92.8	76	71.3	83.2	-249.7	61.7	49.8	40.3	26.1	30.9	-	21.4	19	19	19

12.25	92.8	76	71.3	83.2	-246.6	61.7	49.8	38	26.1	30.9	-	23.8	21.4	21.4	19
12.5	95.4	76.2	71.5	83.4	-243.4	61.9	50	40.5	28.7	31.1	-	24	21.6	21.6	19.2
12.75	95.4	76.2	71.5	83.4	-243.4	64.3	52.4	40.5	28.7	33.4	-	24	21.6	21.6	19.2
13	95.4	76.2	73.8	83.4	-240.4	64.3	52.4	42.9	28.7	33.4	-	24	21.6	21.6	19.2
13.25	95.4	78.6	73.8	85.8	-237.4	64.3	52.4	42.9	28.7	33.4	-	24	21.6	21.6	19.2
13.5	95.4	78.6	73.8	85.8	-234.4	64.3	52.4	40.5	28.7	33.4	-	24	21.6	21.6	19.2
13.75	97.8	78.6	73.8	85.8	-234.4	64.3	52.4	42.9	31.1	33.4	-	24	21.6	21.6	19.2
14	97.6	78.4	73.6	85.6	-231.6	64.1	54.6	42.7	30.9	35.6	-	23.8	21.4	21.4	19
14.25	97.8	78.6	76.2	85.8	-228.5	64.3	52.4	42.9	31.1	35.8	-	24	21.6	21.6	19.2
14.5	97.6	78.4	76	85.6	-222.9	64.1	54.6	45.1	30.9	35.6	-	23.8	23.8	23.8	19
14.75	97.6	78.4	76	85.6	-228.7	64.1	54.6	42.7	30.9	35.6	-	23.8	21.4	21.4	19
15	99.6	78	75.6	87.6	-223.3	66.1	54.2	44.7	32.8	35.2	-	25.7	23.4	23.4	18.6
15.25	99.8	80.6	75.8	85.4	-220.3	66.3	56.8	44.9	33	35.4	-	25.9	23.6	23.6	18.8
15.5	99.4	80.2	75.4	87.4	-212.2	65.9	56.4	44.5	32.6	37.4	-	25.5	23.2	23.2	18.4
15.75	99.6	80.4	75.6	87.6	-212	66.1	56.6	44.7	32.8	37.6	-	25.7	23.4	23.4	18.6
16	99.6	80.4	75.6	87.6	-209.2	66.1	56.6	44.7	32.8	37.6	-	25.7	23.4	23.4	18.6
16.25	101.8	80.2	75.4	87.4	-206.7	65.9	56.4	44.5	32.6	37.4	-	25.5	23.2	23.2	18.4
16.5	101.8	80.2	75.4	87.4	-203.9	68.3	58.7	46.8	35	39.7	-	25.5	23.2	23.2	20.8
16.75	101.6	80	77.6	87.2	-201.4	68.1	58.5	46.6	34.8	39.5	-	25.3	25.3	23	20.6
17	104	80	77.6	89.6	-196	68.1	58.5	46.6	34.8	39.5	-	27.7	25.3	23	20.6
17.25	104.2	80.2	77.8	89.8	-193.1	68.3	58.7	49.2	37.4	39.7	-	27.9	25.5	23.2	20.8
17.5	104	82.4	77.6	89.6	-190.6	68.1	60.9	46.6	37.2	41.9	-	27.7	25.3	25.3	20.6
17.75	104	82.4	77.6	89.6	-185.3	68.1	60.9	49	37.2	41.9	-	27.7	25.3	25.3	20.6
18	106.4	82.4	77.6	89.6	-182.7	68.1	60.9	49	37.2	41.9	-	27.7	25.3	25.3	20.6
18.25	106.4	82.4	77.6	89.6	-180.1	70.5	60.9	49	37.2	41.9	-	27.7	25.3	25.3	20.6
18.5	106.4	82.4	77.6	89.6	-174.9	68.1	60.9	49	37.2	41.9	-	27.7	25.3	25.3	20.6
18.75	106.4	82.4	80	92	-174.9	70.5	60.9	49	39.5	41.9	-	30.1	27.7	25.3	20.6
19	108.8	82.4	80	92	-169.8	70.5	63.3	51.4	39.5	41.9	-	30.1	25.3	25.3	20.6
19.25	108.6	82.2	79.8	91.8	-164.9	70.3	63.1	48.8	39.3	41.7	-	29.9	25.1	25.1	20.4
19.5	108.6	84.6	79.8	91.8	-162.4	70.3	63.1	51.2	39.3	44.1	-	29.9	27.5	25.1	20.4
19.75	108.8	84.8	80	92	-159.7	70.5	63.3	51.4	41.9	44.3	-	30.1	27.7	25.3	20.6
20	111.2	84.8	80	94.4	-154.6	70.5	63.3	51.4	41.9	44.3	-	30.1	27.7	27.7	20.6
20.25	111.2	84.8	80	94.4	-152.2	70.5	63.3	51.4	41.9	44.3	-	30.1	27.7	27.7	20.6
20.5	111.2	84.8	80	94.4	-147.2	72.8	65.7	53.8	41.9	46.6	-	30.1	27.7	25.3	20.6
20.75	111	84.6	79.8	94.2	-144.9	72.6	65.5	53.6	41.7	46.4	-	29.9	29.9	27.5	22.8
21	113.4	87	82.2	94.2	-140	72.6	63.1	51.2	41.7	46.4	-	29.9	27.5	27.5	22.8
21.25	113.4	87	82.2	94.2	-137.6	72.6	65.5	53.6	41.7	46.4	-	32.2	29.9	27.5	22.8
21.5	113.4	87	82.2	96.6	-132.7	72.6	65.5	53.6	44.1	46.4	-	32.2	29.9	27.5	22.8
21.75	115.8	87	82.2	96.6	-130.3	72.6	65.5	53.6	44.1	48.8	-	32.2	29.9	27.5	22.8
22	115.8	87	82.2	96.6	-125.5	72.6	65.5	51.2	44.1	48.8	-	32.2	29.9	27.5	22.8
22.25	118	86.8	82	96.4	-120.8	72.4	67.7	53.4	43.9	48.6	-	32	29.7	27.3	22.6
22.5	118	86.8	82	98.8	-118.4	72.4	67.7	53.4	43.9	48.6	-	32	29.7	27.3	22.6
22.75	118.2	87	84.6	99	-113.5	72.6	67.9	53.6	44.1	48.8	-	32.2	29.9	29.9	22.8
23	120.6	87	84.6	99	-111.1	72.6	67.9	53.6	46.4	48.8	-	32.2	29.9	29.9	22.8
23.25	120.6	89.4	84.6	99	-106.3	75	67.9	53.6	46.4	48.8	-	34.6	32.2	29.9	22.8
23.5	120.6	89.4	84.6	101.4	-103.9	75	67.9	53.6	46.4	51.2	-	32.2	32.2	29.9	22.8
23.75	123	89.4	84.6	101.4	-99.2	75	67.9	56	46.4	51.2	-	34.6	32.2	29.9	22.8
24	123	89.4	84.6	101.4	-94.5	75	70.3	56	46.4	51.2	-	34.6	32.2	29.9	22.8
24.25	125.4	89.4	87	101.4	-92.1	75	70.3	56	46.4	51.2	-	34.6	32.2	29.9	22.8
24.5	125.4	91.8	87	103.8	-87.4	75	70.3	56	46.4	51.2	-	34.6	32.2	29.9	22.8
24.75	127.8	91.8	87	103.8	-82.7	77.4	70.3	56	48.8	51.2	-	34.6	32.2	29.9	22.8
25	128	92	87.2	104	-77.8	75.2	70.5	58.5	49	51.4	-	34.8	32.4	30.1	23
25.25	130.3	91.8	87	106.2	-73.3	77.4	70.3	58.3	48.8	53.6	-	34.6	34.6	32.2	22.8
25.5	132.7	91.8	89.4	106.2	-68.7	77.4	70.3	58.3	48.8	53.6	-	34.6	34.6	32.2	25.1
25.75	135.1	94.2	89.4	108.6	-66.3	77.4	72.6	58.3	48.8	53.6	-	34.6	34.6	32.2	25.1
26	137.5	94.2	89.4	108.6	-61.6	77.4	72.6	58.3	48.8	53.6	-	34.6	34.6	32.2	22.8
26.25	137.5	94.2	89.4	111	-57	77.4	72.6	58.3	51.2	53.6	-	37	34.6	32.2	22.8
26.5	139.9	94.2	89.4	111	-52.3	79.8	72.6	58.3	51.2	53.6	-	37	34.6	32.2	25.1

26.75	142.3	94.2	89.4	111	-47.6	79.8	72.6	60.7	51.2	53.6	-	37	34.6	32.2	25.1
27	144.7	96.6	91.8	113.4	-42.9	79.8	72.6	58.3	51.2	53.6	-	37	34.6	32.2	25.1
27.25	144.7	96.6	91.8	113.4	-38.3	79.8	75	60.7	51.2	56	-	37	37	32.2	25.1
27.5	147.1	96.6	91.8	115.8	-33.6	79.8	75	60.7	51.2	56	-	37	37	34.6	25.1
27.75	149.6	96.6	91.8	115.8	-28.9	79.8	75	60.7	53.6	56	-	37	37	32.2	25.1
28	149.6	99	94.2	118.2	-21.9	82.2	75	60.7	53.6	56	-	37	37	34.6	25.1
28.25	152	99	94.2	118.2	-19.6	82.2	77.4	60.7	53.6	58.3	-	37	37	34.6	25.1
28.5	154.4	99	94.2	120.6	-12.5	82.2	77.4	60.7	53.6	58.3	-	39.3	37	34.6	25.1
28.75	156.8	101.4	94.2	120.6	-7.8	82.2	77.4	60.7	53.6	58.3	-	39.3	37	34.6	25.1
29	159.2	101.4	96.6	123	-0.8	82.2	77.4	60.7	53.6	58.3	-	39.3	39.3	34.6	25.1
29.25	161.6	101.4	96.6	123	3.9	82.2	77.4	63.1	53.6	58.3	-	39.3	37	34.6	25.1
29.5	164	103.8	96.6	125.4	8.6	84.6	79.8	63.1	53.6	58.3	-	39.3	39.3	34.6	27.5
29.75	166.4	103.8	99	127.8	15.7	84.6	79.8	63.1	53.6	58.3	-	39.3	37	34.6	27.5
30	166.4	103.8	99	127.8	18	84.6	79.8	63.1	56	60.7	-	39.3	39.3	34.6	25.1
30.25	168.7	106	98.8	130.1	22.6	84.4	79.6	62.9	55.8	60.5	-	39.1	39.1	34.4	27.3
30.5	171.3	106.2	99	130.3	29.9	84.6	79.8	65.5	56	60.7	-	39.3	39.3	34.6	25.1
30.75	173.5	108.4	101.2	130.1	34.4	86.8	82	65.3	55.8	60.5	-	41.5	39.1	36.8	27.3
31	175.9	108.4	101.2	132.5	41.5	86.8	82	65.3	58.1	62.9	-	41.5	39.1	36.8	27.3
31.25	176.1	108.6	101.4	135.1	48.8	87	82.2	65.5	58.3	63.1	-	41.7	39.3	37	27.5
31.5	178.3	110.8	103.6	134.9	55.8	89.2	84.4	65.3	58.1	62.9	-	41.5	41.5	36.8	27.3
31.75	180.9	111	103.8	137.5	60.7	89.4	84.6	67.9	58.3	63.1	-	41.7	39.3	37	27.5
32	180.9	111	103.8	137.5	67.9	89.4	84.6	65.5	58.3	63.1	-	41.7	41.7	37	27.5
32.25	183.3	113.4	106.2	139.9	79.8	89.4	84.6	67.9	60.7	63.1	-	41.7	39.3	37	27.5
32.5	185.8	113.4	106.2	139.9	84.6	89.4	84.6	67.9	60.7	63.1	-	41.7	41.7	37	27.5
32.75	185.8	115.8	108.6	139.9	89.4	91.8	87	67.9	60.7	65.5	-	41.7	41.7	37	27.5
33	188	115.6	108.4	142.1	98.8	91.6	86.8	67.7	60.5	65.3	-	41.5	41.5	36.8	27.3
33.25	190.4	115.6	108.4	144.5	106	91.6	86.8	67.7	60.5	65.3	-	43.9	41.5	36.8	27.3
33.5	190.6	118.2	111	144.7	115.8	91.8	87	70.3	60.7	67.9	-	44.1	41.7	39.3	27.5
33.75	193	118.2	111	144.7	123	91.8	89.4	70.3	60.7	67.9	-	44.1	41.7	39.3	27.5
34	193	120.6	111	147.1	130.3	91.8	89.4	70.3	63.1	67.9	-	44.1	41.7	39.3	29.9
34.25	195.4	120.6	113.4	147.1	139.9	91.8	89.4	72.6	63.1	67.9	-	44.1	44.1	39.3	29.9
34.5	195.4	120.6	113.4	149.6	149.6	94.2	89.4	72.6	63.1	67.9	-	44.1	41.7	39.3	29.9
34.75	197.6	122.8	113.2	149.4	159	94	89.2	72.4	62.9	70.1	-	43.9	41.5	39.1	29.7
35	197.6	122.8	115.6	151.8	166.2	94	91.6	72.4	62.9	70.1	-	43.9	43.9	39.1	29.7
35.25	200	125.2	115.6	151.8	178.3	94	91.6	72.4	65.3	70.1	-	43.9	43.9	39.1	29.7
35.5	199.8	125	117.8	154	187.8	93.8	91.4	72.2	65.1	69.9	-	43.7	43.7	41.3	29.5
35.75	202.5	127.6	118	154.2	197.6	94	91.6	72.4	65.3	70.1	-	46.2	43.9	41.5	29.7
36	202.5	127.6	118	154.2	207.3	94	91.6	74.8	65.3	72.4	-	46.2	43.9	41.5	29.7
36.25	205.1	127.8	120.6	156.8	217.1	94.2	91.8	75	67.9	72.6	-	46.4	44.1	39.3	29.9
36.5	204.9	130.1	120.4	156.6	229	96.4	94	74.8	67.7	72.4	-	46.2	43.9	41.5	29.7
36.75	204.9	130.1	120.4	156.6	241	96.4	94	74.8	67.7	72.4	-	46.2	43.9	41.5	32
37	207.5	130.3	123	159.2	250.8	96.6	94.2	75	67.9	72.6	-	46.4	46.4	41.7	29.9
37.25	207.5	132.7	123	159.2	262.8	99	94.2	77.4	67.9	75	-	46.4	46.4	41.7	29.9
37.5	209.9	135.1	123	161.6	274.7	99	94.2	77.4	67.9	75	-	46.4	46.4	41.7	29.9
37.75	209.9	135.1	125.4	161.6	286.7	99	96.6	77.4	70.3	75	-	48.8	46.4	41.7	32.2
38	212.3	137.5	125.4	164	298.6	99	96.6	77.4	70.3	75	-	46.4	46.4	44.1	32.2
38.25	212.1	137.3	127.6	163.8	310.3	98.8	96.4	77.2	70.1	77.2	-	48.6	46.2	41.5	32
38.5	214.7	137.5	127.8	166.4	324.7	101.4	96.6	79.8	72.6	77.4	-	48.8	46.4	41.7	32.2
38.75	214.7	139.9	127.8	166.4	336.5	99	96.6	77.4	72.6	77.4	-	48.8	46.4	44.1	32.2
39	217.1	139.9	127.8	166.4	350.6	101.4	96.6	77.4	72.6	77.4	-	48.8	48.8	44.1	32.2
39.25	216.9	142.1	130.1	168.7	362.2	101.2	96.4	79.6	72.4	77.2	-	48.6	48.6	43.9	32
39.5	217.1	142.3	130.3	168.9	376.4	101.4	96.6	82.2	72.6	79.8	-	48.8	48.8	44.1	32.2
39.75	219.5	142.3	130.3	168.9	390.4	101.4	96.6	79.8	72.6	79.8	-	48.8	48.8	44.1	32.2
40	219.5	144.7	132.7	171.3	404.4	101.4	96.6	82.2	72.6	79.8	-	48.8	48.8	44.1	32.2
40.25	221.9	144.7	135.1	171.3	420.7	103.8	96.6	82.2	75	79.8	-	51.2	48.8	44.1	32.2
40.5	221.9	147.1	135.1	171.3	434.5	103.8	99	82.2	75	82.2	-	51.2	48.8	44.1	32.2
40.75	221.9	147.1	135.1	173.7	450.7	103.8	99	82.2	75	82.2	-	51.2	48.8	44.1	32.2
41	224.3	147.1	135.1	173.7	464.5	103.8	99	82.2	75	82.2	-	51.2	51.2	44.1	32.2

41.25	224.3	149.6	137.5	173.7	480.6	103.8	99	84.6	77.4	82.2	-	51.2	51.2	46.4	32.2
41.5	226.8	149.6	137.5	176.1	496.6	106.2	99	84.6	77.4	82.2	-	51.2	51.2	46.4	34.6
41.75	226.8	152	137.5	176.1	512.7	106.2	99	82.2	77.4	82.2	-	51.2	51.2	46.4	34.6
42	229.2	152	139.9	178.5	528.7	106.2	99	84.6	77.4	84.6	-	51.2	51.2	46.4	34.6
42.25	229.4	152.2	140.1	178.7	547.2	106.4	99.2	84.8	77.6	84.8	-	51.4	51.4	46.6	34.8
42.5	229.2	154.4	139.9	178.5	563	106.2	99	84.6	79.8	84.6	-	53.6	51.2	46.4	34.6
42.75	231.6	154.4	139.9	178.5	581.3	108.6	99	84.6	79.8	84.6	-	53.6	51.2	46.4	34.6
43	231.6	154.4	142.3	180.9	599.6	108.6	99	87	79.8	87	-	53.6	53.6	48.8	34.6
43.25	234	156.8	144.7	180.9	617.9	108.6	101.4	84.6	79.8	84.6	-	53.6	53.6	48.8	34.6
43.5	234	156.8	142.3	180.9	636.3	111	99	87	82.2	87	-	53.6	53.6	48.8	34.6
43.75	234	159.2	144.7	183.3	654.7	108.6	101.4	89.4	79.8	87	-	53.6	53.6	48.8	34.6
44	236.6	159.4	144.9	183.5	673.3	111.2	101.6	87.2	82.4	87.2	-	53.8	53.8	49	34.8
44.25	236.4	159.2	147.1	183.3	694	111	101.4	87	82.2	87	-	53.6	53.6	48.8	34.6
44.5	236.4	161.6	147.1	185.8	712.6	111	101.4	89.4	82.2	87	-	56	53.6	48.8	34.6
44.75	239	161.8	147.3	186	733.8	111.2	101.6	87.2	82.4	89.6	-	56.2	53.8	49	37.2
45	238.8	164	147.1	185.8	754.7	111	101.4	89.4	82.2	89.4	-	56	56	51.2	34.6
45.25	241.2	164	149.6	188.2	775.9	113.4	101.4	89.4	84.6	89.4	-	56	56	48.8	37
45.5	241.4	164.2	149.8	188.4	797.4	113.6	101.6	89.6	84.8	89.6	-	56.2	56.2	51.4	37.2
45.75	243.8	164.2	152.2	188.4	818.8	113.6	101.6	89.6	84.8	89.6	-	58.5	56.2	49	37.2
46	243.6	166.4	152	188.2	840.1	113.4	103.8	89.4	84.6	91.8	-	56	56	51.2	37
46.25	243.8	166.6	152.2	190.8	864.4	113.6	104	89.6	84.8	92	-	56.2	56.2	51.4	37.2
46.5	246	166.4	152	190.6	886	115.8	103.8	89.4	84.6	91.8	-	56	58.3	51.2	37
46.75	246.2	166.6	154.6	190.8	910.5	116	104	89.6	87.2	92	-	58.5	58.5	51.4	37.2
47	248.4	168.9	154.4	193	934.8	115.8	103.8	91.8	87	91.8	-	58.3	58.3	51.2	37
47.25	248.4	168.9	154.4	193	959.4	115.8	103.8	91.8	87	91.8	-	58.3	58.3	51.2	37
47.5	248.4	171.3	156.8	193	981.7	115.8	103.8	91.8	87	94.2	-	58.3	58.3	51.2	37
47.75	250.8	171.3	156.8	193	1006.6	118.2	103.8	91.8	87	94.2	-	58.3	58.3	53.6	37
48	250.8	171.3	156.8	195.4	1034.2	118.2	106.2	91.8	87	94.2	-	58.3	58.3	53.6	37
48.25	253.2	173.7	156.8	195.4	1059.4	118.2	106.2	94.2	87	94.2	-	58.3	60.7	53.6	37
48.5	253.2	173.7	159.2	195.4	1084.9	118.2	106.2	91.8	89.4	94.2	-	60.7	60.7	53.6	37
48.75	253.2	173.7	159.2	197.8	1113.1	118.2	106.2	94.2	89.4	94.2	-	60.7	60.7	53.6	37
49	253.2	173.7	159.2	197.8	1139	120.6	106.2	94.2	89.4	94.2	-	60.7	60.7	53.6	37
49.25	255.4	175.9	161.4	197.6	1167.5	120.4	106	91.6	89.2	94	-	60.5	60.5	53.4	36.8
49.5	255.8	176.3	161.8	200.4	1197	120.8	106.4	94.4	89.6	94.4	-	60.9	60.9	53.8	39.5
49.75	258.2	176.3	161.8	200.4	1223.7	120.8	108.8	94.4	89.6	96.8	-	60.9	60.9	53.8	37.2
50	260.6	176.3	164.2	200.4	1253.4	120.8	106.4	94.4	89.6	94.4	-	60.9	60.9	53.8	39.5
50.25	260.6	178.7	164.2	200.4	1283.5	120.8	108.8	94.4	89.6	96.8	-	60.9	63.3	53.8	39.5
50.5	260.6	178.7	164.2	202.9	1314	123.2	108.8	94.4	92	96.8	-	63.3	60.9	56.2	39.5
50.75	262.8	178.5	166.4	202.7	1344.7	123	108.6	94.2	91.8	96.6	-	63.1	63.1	56	39.3
51	265.4	181.1	166.6	202.9	1376.2	123.2	108.8	94.4	92	96.8	-	63.3	63.3	56.2	39.5
51.25	265.2	180.9	166.4	202.7	1407.6	123	108.6	94.2	91.8	96.6	-	60.7	63.1	56	39.3
51.5	265.4	181.1	166.6	205.3	1436.7	125.6	108.8	94.4	92	96.8	-	60.9	63.3	56.2	39.5
51.75	267.8	183.5	169.1	205.3	1468.7	123.2	111.2	94.4	92	96.8	-	63.3	63.3	58.5	39.5
52	267.8	183.5	169.1	205.3	1497.8	125.6	111.2	94.4	94.4	96.8	-	63.3	65.7	58.5	39.5
52.25	270.4	183.7	169.3	205.5	1529.7	125.8	111.4	97	94.6	97	-	63.5	63.5	58.7	39.7
52.5	272.5	183.5	169.1	207.7	1558	125.6	111.2	94.4	94.4	96.8	-	63.3	63.3	58.5	39.5
52.75	272.3	185.8	171.3	207.5	1588.2	127.8	113.4	96.6	94.2	99	-	63.1	65.5	58.3	39.3
53	274.9	186	171.5	207.7	1615	128	113.6	96.8	94.4	96.8	-	63.3	65.7	58.5	39.5
53.25	274.9	186	173.9	207.7	1640	128	113.6	94.4	94.4	96.8	-	63.3	65.7	60.9	39.5
53.5	277.3	186	173.9	210.1	1662.9	128	113.6	96.8	94.4	99.2	-	65.7	65.7	58.5	39.5
53.75	277.3	188.4	173.9	210.1	1681.2	128	113.6	96.8	94.4	99.2	-	65.7	65.7	58.5	41.9
54	279.5	188.2	176.1	212.3	1698.1	127.8	113.4	96.6	94.2	99	-	65.5	67.9	60.7	39.3
54.25	282.1	188.4	176.3	212.5	1711	130.5	113.6	96.8	94.4	99.2	-	65.7	68.1	60.9	41.9
54.5	282.1	190.8	176.3	212.5	1717.9	128	116	96.8	94.4	99.2	-	65.7	68.1	60.9	39.5
54.75	284.5	190.8	176.3	212.5	1719.5	130.5	116	96.8	94.4	99.2	-	65.7	68.1	60.9	41.9
55	284.5	190.8	176.3	212.5	1713.9	130.5	116	96.8	94.4	99.2	-	65.7	68.1	60.9	41.9
55.25	289.5	191	178.9	215.1	1702.9	130.7	116.2	97	97	99.4	-	65.9	68.3	61.1	42.1
55.5	291.6	190.8	178.7	214.9	1681.7	130.5	118.4	99.2	94.4	99.2	-	65.7	68.1	60.9	41.9

55.75	294	193.2	178.7	217.3	1646.2	132.9	118.4	96.8	96.8	99.2	-	68.1	70.5	60.9	41.9
56	294	193.2	181.1	217.3	1607.1	132.9	118.4	99.2	96.8	99.2	-	65.7	70.5	60.9	41.9
56.25	296.4	195.6	183.5	217.3	1549.8	132.9	118.4	99.2	96.8	99.2	-	68.1	70.5	60.9	41.9
56.5	298.8	195.6	183.5	217.3	1485.5	135.3	118.4	96.8	96.8	99.2	-	68.1	70.5	63.3	41.9
56.75	303.5	195.6	183.5	217.3	1396	135.3	118.4	99.2	96.8	99.2	-	68.1	70.5	63.3	41.9
57	306.1	198.2	186.2	219.9	1299.2	135.5	121	97	97	99.4	-	68.3	70.7	63.5	42.1
57.25	308.3	198	186	222.1	1183.6	135.3	120.8	99.2	96.8	99.2	-	68.1	70.5	63.3	41.9
57.5	310.7	198	186	222.1	1047.4	135.3	120.8	96.8	96.8	99.2	-	68.1	70.5	63.3	41.9
57.75	315.6	198.2	186.2	222.3	888.4	137.9	121	99.4	97	99.4	-	68.3	70.7	63.5	42.1
58	317.6	197.8	188.2	221.9	727.7	137.5	120.6	99	96.6	99	-	67.9	70.3	63.1	41.7
58.25	322.5	200.4	188.4	224.5	517.9	137.7	123.2	99.2	99.2	99.2	-	70.5	72.8	63.3	41.9
58.5	324.9	200.4	190.8	224.5	276.6	140.1	123.2	99.2	99.2	99.2	-	70.5	72.8	65.7	41.9
58.75	329.8	200.6	191	224.7	37.2	140.3	125.8	101.8	99.4	99.4	-	70.7	73	65.9	42.1
59	332	202.9	190.8	227	-272.5	140.1	125.6	99.2	99.2	99.2	-	70.5	72.8	65.7	44.3
59.25	336.7	202.9	193.2	227	-577.7	140.1	125.6	101.6	99.2	99.2	-	70.5	72.8	65.7	41.9
59.5	339.1	205.3	193.2	229.4	-917.7	140.1	123.2	99.2	99.2	99.2	-	70.5	72.8	65.7	41.9
59.75	344	205.5	195.8	229.6	-	142.7	125.8	99.4	99.4	99.4	-	70.7	73	65.9	44.5
60	346.1	205.3	195.6	231.8	-	142.5	125.6	101.6	99.2	99.2	-	70.5	75.2	65.7	44.3
60.25	351	207.9	195.8	232	-	142.7	128.2	99.4	99.4	99.4	-	70.7	75.4	68.3	44.5
60.5	353.2	207.7	198	234.2	-	142.5	128	99.2	99.2	99.2	-	70.5	75.2	68.1	44.3
60.75	357.9	207.7	198	234.2	-	144.9	128	101.6	99.2	99.2	-	70.5	75.2	68.1	44.3
61	360.2	207.7	200.4	234.2	-3785	144.9	128	101.6	99.2	101.6	-	72.8	75.2	68.1	44.3
61.25	364.9	210.1	200.4	236.6	-	144.9	128	99.2	99.2	99.2	-	70.5	75.2	68.1	44.3
61.5	367.5	210.3	203.1	236.8	-	147.5	128.2	99.4	99.4	101.8	-	73	75.4	68.3	44.5
61.75	369.4	212.3	202.7	238.8	-5767	147.1	130.3	101.4	99	99	-	72.6	75	67.9	44.1
62	374.3	214.9	205.3	239	-	147.3	130.5	101.6	99.2	99.2	-	72.8	75.2	68.1	44.3
62.25	376.6	214.9	205.3	241.4	-	149.8	130.5	101.6	99.2	101.6	-	72.8	77.6	70.5	44.3
62.5	376.8	215.1	207.9	241.6	-	150	130.7	101.8	99.4	101.8	-64016	73	77.8	70.7	44.5
62.75	379	217.3	207.7	243.8	-8906	149.8	132.9	101.6	99.2	99.2	-	72.8	77.6	70.5	44.3
63	381.5	217.5	210.3	246.4	-9714	150	133.1	101.8	99.4	101.8	-	73	77.8	68.3	44.5
63.25	383.6	219.7	210.1	246.2	-	152.2	132.9	101.6	99.2	101.6	-	72.8	77.6	70.5	44.3
63.5	383.8	219.9	212.7	248.8	-	152.4	135.5	101.8	99.4	101.8	-	75.4	77.8	70.7	44.5
63.75	383.8	222.3	212.7	248.8	-	152.4	135.5	101.8	99.4	101.8	-	73	77.8	70.7	44.5
64	383.8	222.3	215.1	251.2	-	154.8	135.5	104.2	99.4	101.8	-	75.4	77.8	70.7	46.8
64.25	386.2	224.7	217.5	253.6	-	154.8	137.9	104.2	99.4	99.4	-	75.4	80.2	70.7	44.5
64.5	388.3	224.5	217.3	253.4	-	154.6	137.7	106.4	99.2	101.6	-1338	75.2	80	72.8	44.3
64.75	388.5	227.2	219.9	256	-	157.2	137.9	104.2	99.4	101.8	-811.5	75.4	80.2	73	46.8
65	390.8	227.2	219.9	258.4	-	157.2	137.9	104.2	99.4	101.8	-517.5	75.4	80.2	73	46.8
65.25	393.2	229.6	222.3	260.8	-	157.2	140.3	104.2	99.4	101.8	-354.3	75.4	80.2	73	46.8
65.5	393	231.8	224.5	263	-20130	159.4	140.1	101.6	99.2	101.6	-241.4	75.2	80	72.8	46.6
65.75	395.5	234.4	224.7	263.2	-	159.6	140.3	104.2	99.4	101.8	-162	75.4	80.2	73	46.8
66	397.8	234.4	227.2	265.6	-	159.6	142.7	104.2	99.4	101.8	-84.7	77.8	80.2	73	46.8
66.25	397.8	234.4	229.6	268	-	162	142.7	104.2	101.8	101.8	-19.2	77.8	80.2	73	46.8
66.5	400.2	236.8	229.6	270.4	-	162	142.7	104.2	99.4	101.8	42.1	77.8	80.2	73	46.8
66.75	402.5	239.2	232	270.4	-	162	145.1	104.2	99.4	101.8	101.8	77.8	80.2	75.4	46.8
67	404.8	241.6	234.4	272.7	-	162	145.1	104.2	101.8	101.8	164.4	77.8	82.6	75.4	46.8
67.25	407.1	241.6	234.4	275.1	-	164.4	145.1	104.2	99.4	101.8	222.3	77.8	82.6	75.4	46.8
67.5	407.1	244	236.8	277.5	-	164.4	147.5	104.2	99.4	101.8	282.3	77.8	82.6	75.4	46.8
67.75	409.5	244	236.8	279.9	-	164.4	147.5	106.6	101.8	101.8	336.9	77.8	82.6	75.4	46.8
68	411.6	246.2	239	282.1	-	166.6	149.8	104	99.2	101.6	390.6	77.6	82.4	75.2	46.6
68.25	414.1	248.8	239.2	282.3	-	166.8	150	106.6	99.4	101.8	441.9	80.2	82.6	75.4	46.8
68.5	416.4	251.2	241.6	284.7	-33089	169.3	150	106.6	99.4	101.8	485.6	77.8	82.6	75.4	46.8
68.75	418.7	251.2	244	287.1	-	169.3	152.4	106.6	99.4	101.8	529.1	77.8	82.6	75.4	46.8
69	421.1	253.6	244	289.5	-	169.3	152.4	106.6	99.4	101.8	572.5	80.2	85	77.8	46.8
69.25	421.1	253.6	246.4	291.8	-	171.7	154.8	109	99.4	101.8	611.4	80.2	82.6	77.8	46.8
69.5	423.4	256	248.8	291.8	-	171.7	154.8	109	99.4	104.2	650.5	80.2	85	77.8	46.8
69.75	425.7	258.4	248.8	294.2	-	171.7	154.8	109	101.8	101.8	689.7	80.2	85	77.8	49.2
70	428	258.4	251.2	296.6	-	174.1	157.2	109	101.8	104.2	727	80.2	85	77.8	49.2

70.25	430.3	263.2	251.2	299	-	174.1	157.2	109	99.4	104.2	757.4	80.2	85	77.8	49.2
70.5	430.3	263.2	253.6	301.4	-	176.5	157.2	109	99.4	104.2	788.1	80.2	85	77.8	49.2
70.75	432.4	265.4	253.4	301.2	-	176.3	159.4	108.8	99.2	104	811.7	80	84.8	77.6	49
71	434.7	265.4	255.8	303.5	-	176.3	159.4	111.2	101.6	104	835.5	80	87.2	80	49
71.25	437.3	268	258.4	306.1	-	178.9	162	111.4	99.4	104.2	857.4	80.2	85	80.2	49.2
71.5	439.6	270.4	258.4	306.1	-	178.9	162	111.4	101.8	104.2	876.7	82.6	85	80.2	49.2
71.75	441.9	272.7	260.8	308.5	-	181.3	164.4	111.4	99.4	104.2	893.7	82.6	87.4	80.2	49.2
72	441.9	272.7	263.2	310.9	-	181.3	164.4	111.4	99.4	106.6	905.8	82.6	87.4	80.2	49.2
72.25	444	274.9	263	310.7	-	183.5	164.2	113.6	101.6	106.4	912.9	82.4	87.2	80	49
72.5	446.5	275.1	265.6	315.6	-	183.7	166.8	113.8	101.8	106.6	920.5	82.6	87.4	80.2	49.2
72.75	446.5	277.5	265.6	315.6	-	183.7	166.8	113.8	101.8	106.6	935.2	82.6	87.4	80.2	49.2
73	449	277.7	268.2	318.2	-	186.4	169.5	114	102	106.8	942.7	82.8	87.6	80.4	49.4
73.25	451.1	282.3	268	320.3	-	186.2	169.3	113.8	101.8	106.6	949.9	82.6	87.4	80.2	49.2
73.5	451.1	282.3	270.4	320.3	-49628	188.6	171.7	113.8	101.8	109	957.3	85	87.4	82.6	49.2
73.75	453.4	284.7	272.7	322.7	-	188.6	171.7	113.8	101.8	109	962.2	85	89.8	82.6	51.6
74	455.7	284.7	272.7	325.1	-	191	174.1	113.8	101.8	109	969.7	85	87.4	82.6	51.6
74.25	455.5	286.9	274.9	327.2	-	190.8	173.9	116	101.6	108.8	979.4	84.8	87.2	82.4	49
74.5	458	289.5	275.1	327.4	-	193.4	174.1	116.2	101.8	109	984.5	85	89.8	82.6	51.6
74.75	460.3	289.5	277.5	329.8	-	193.4	176.5	116.2	101.8	109	977.1	85	89.8	82.6	51.6
75	460.3	291.8	277.5	332.2	-	195.8	176.5	118.6	101.8	109	974.6	85	89.8	82.6	51.6
75.25	462.6	294.2	279.9	334.5	-53883	195.8	178.9	118.6	101.8	109	969.7	85	89.8	82.6	51.6
75.5	462.6	294.2	282.3	336.9	-	195.8	178.9	118.6	101.8	111.4	962.2	85	89.8	82.6	51.6
75.75	462.6	296.6	282.3	336.9	-	198.2	178.9	121	101.8	111.4	949.9	87.4	89.8	85	51.6
76	464.9	299	284.7	339.3	-	200.6	181.3	118.6	101.8	111.4	930.3	87.4	92.2	85	51.6
76.25	464.9	299	284.7	341.6	-	200.6	181.3	118.6	101.8	111.4	910.7	87.4	89.8	85	51.6
76.5	467.2	301.4	287.1	344	-	200.6	183.7	121	101.8	111.4	883.9	87.4	92.2	85	51.6
76.75	467.2	301.4	289.5	346.3	-	203.1	186.2	121	101.8	113.8	847.7	87.4	92.2	85	51.6
77	469.5	303.7	289.5	346.3	-	203.1	186.2	121	101.8	113.8	804.7	87.4	92.2	85	51.6
77.25	469.5	306.1	291.8	348.7	-	205.5	186.2	123.4	101.8	113.8	759.8	87.4	92.2	85	51.6
77.5	469.3	305.9	291.6	348.5	-	205.3	188.4	123.2	104	113.6	710.4	87.2	92	87.2	51.4
77.75	469.5	308.5	294.2	351	-	205.5	188.6	123.4	104.2	113.8	659.7	87.4	92.2	85	51.6
78	471.8	310.9	294.2	353.4	-	207.9	191	123.4	104.2	116.2	616	89.8	92.2	87.4	51.6
78.25	471.8	310.9	296.6	355.7	-	207.9	191	123.4	104.2	116.2	567.9	89.8	92.2	87.4	51.6
78.5	471.8	313.2	299	355.7	-	210.3	193.4	125.8	104.2	116.2	508.5	89.8	92.2	87.4	51.6
78.75	471.8	313.2	299	358.1	-	210.3	193.4	125.8	104.2	116.2	444.2	89.8	92.2	87.4	54
79	474.1	315.6	301.4	358.1	-	212.7	193.4	128.2	104.2	116.2	381.5	89.8	92.2	87.4	51.6
79.25	473.9	315.4	303.5	360.2	-	214.9	193.2	128	106.4	118.4	313	89.6	94.4	87.2	53.8
79.5	474.1	318	303.7	360.4	-	215.1	195.8	125.8	106.6	118.6	234.4	89.8	94.6	89.8	51.6
79.75	476.4	320.3	306.1	362.8	-	217.5	198.2	128.2	106.6	118.6	145.1	89.8	94.6	89.8	54
80	476.4	320.3	306.1	365.1	-	217.5	198.2	128.2	106.6	121	68.3	89.8	94.6	89.8	54
80.25	476.2	322.5	308.3	364.9	-61175	217.3	198	130.5	106.4	120.8	-7.6	92	94.4	89.6	51.4
80.5	476.4	325.1	308.5	367.5	-	219.9	200.6	128.2	109	121	-91.7	92.2	94.6	89.8	54
80.75	476.4	325.1	310.9	369.8	-	219.9	203.1	130.7	109	121	-174.7	92.2	94.6	89.8	54
81	476.4	325.1	310.9	369.8	-	222.3	203.1	130.7	109	121	-279.2	92.2	94.6	89.8	54
81.25	478.7	327.4	313.2	372.2	-	222.3	203.1	130.7	109	121	-424.3	92.2	94.6	89.8	54
81.5	478.7	329.8	315.6	372.2	-	224.7	205.5	133.1	109	123.4	-644.8	92.2	94.6	89.8	54
81.75	478.7	329.8	315.6	374.5	-	224.7	205.5	133.1	109	123.4	-	92.2	94.6	89.8	54
82	478.7	332.2	318	374.5	-64021	224.7	207.9	135.5	111.4	123.4	-	92.2	94.6	92.2	54
82.25	478.7	332.2	320.3	376.8	-64021	227.2	207.9	135.5	111.4	123.4	-	92.2	97	89.8	54
82.5	478.7	334.5	320.3	376.8	-64021	227.2	207.9	135.5	111.4	125.8	-	94.6	94.6	92.2	54
82.75	478.7	336.9	322.7	379.2	-	229.6	210.3	137.9	113.8	125.8	-	92.2	97	92.2	54
83	481.2	337.1	322.9	379.4	-	229.8	210.5	138.1	114	126	-	94.8	97.2	92.4	54.2
83.25	481	339.3	325.1	381.5	-	232	212.7	137.9	113.8	128.2	-16613	94.6	97	92.2	56.4
83.5	481.2	341.8	325.3	381.7	-	232.2	212.9	138.1	114	128.5	-	94.8	97.2	92.4	54.2
83.75	481	341.6	327.4	383.8	-	234.4	212.7	140.3	113.8	128.2	-	94.6	97	92.2	54
84	481	344	329.8	383.8	-	234.4	215.1	140.3	116.2	128.2	-	94.6	97	92.2	56.4
84.25	485.6	346.3	329.8	386.2	-	234.4	215.1	140.3	116.2	128.2	-	94.6	97	92.2	56.4
84.5	485.6	346.3	329.8	386.2	-	236.8	215.1	140.3	116.2	130.7	-	94.6	97	92.2	56.4

84.75	487.9	348.7	332.2	388.5	-	239.2	217.5	142.7	116.2	130.7	-	94.6	97	94.6	56.4
85	487.9	348.7	334.5	388.5	-	239.2	217.5	142.7	118.6	130.7	-	94.6	97	94.6	56.4
85.25	488.1	351.2	334.7	391	-	239.4	220.1	145.3	118.8	133.3	-	94.8	97.2	94.8	56.6
85.5	490.2	351	336.9	390.8	-	241.6	219.9	145.1	118.6	133.1	-	97	97	94.6	56.4
85.75	490.2	353.4	339.3	390.8	-	241.6	222.3	147.5	118.6	133.1	-	97	97	94.6	56.4
86	490.2	355.7	339.3	393.2	-	244	222.3	147.5	121	135.5	-	97	97	94.6	56.4
86.25	490.2	355.7	339.3	395.5	-	244	222.3	147.5	118.6	135.5	-	97	97	94.6	56.4
86.5	492.7	358.3	341.8	395.7	-	246.6	224.9	150.2	121.2	135.7	-	97.2	99.6	94.8	56.6
86.75	492.7	358.3	341.8	395.7	-	246.6	224.9	150.2	121.2	135.7	-	97.2	97.2	94.8	58.9
87	492.5	360.4	344	397.8	-68496	246.4	224.7	150	121	137.9	-	97	99.4	94.6	58.7
87.25	492.5	362.8	346.3	397.8	-68496	248.8	224.7	150	123.4	137.9	-	97	97	97	58.7
87.5	495	363	346.5	400.4	-	249	227.4	152.6	123.6	138.1	-	97.2	99.6	97.2	58.9
87.75	492.5	365.1	348.7	400.2	-	251.2	227.2	152.4	123.4	137.9	-	97	99.4	97	58.7
88	494.8	365.1	351	400.2	-	251.2	229.6	152.4	123.4	140.3	-	97	99.4	97	58.7
88.25	494.8	367.5	351	402.5	-	251.2	229.6	154.8	125.8	140.3	-	97	99.4	97	58.7
88.5	495	367.7	353.6	402.7	-	253.8	232.2	155	126	140.5	-	97.2	99.6	97.2	58.9
88.75	494.8	367.5	353.4	402.5	-	253.6	232	157.2	125.8	142.7	-	97	99.4	97	58.7
89	494.8	369.8	355.7	404.8	-	256	232	157.2	128.2	142.7	-	99.4	99.4	97	58.7
89.25	497	369.8	355.7	404.8	-	256	232	157.2	128.2	142.7	-	99.4	99.4	97	58.7
89.5	497	372.2	358.1	404.8	-	256	234.4	157.2	128.2	145.1	-	97	99.4	97	58.7
89.75	497	372.2	358.1	407.1	-	258.4	234.4	159.6	128.2	145.1	-	99.4	99.4	97	58.7
90	494.8	372.2	358.1	407.1	-	258.4	234.4	159.6	128.2	145.1	-	99.4	99.4	97	58.7

Test 2

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	20.6	20.6	25.4	20.6	20.6	20.6	20.6	20.6	18.3	18.3	20.6	20.6	20.6	20.6	27.7
0.5	30.1	23	25.4	20.6	20.6	20.6	20.6	20.6	18.3	20.6	20.6	20.6	20.6	20.6	27.7
0.75	35	23.2	27.9	23.2	23.2	20.8	20.8	20.8	18.5	20.8	20.8	20.8	20.8	20.8	27.9
1	46.9	23.2	32.7	23.2	23.2	20.8	20.8	20.8	18.5	18.5	20.8	20.8	20.8	20.8	27.9
1.25	56.6	23.4	37.6	23.4	23.4	21	21	21	21	21	21	21	21	21	28.1
1.5	68.3	25.6	46.9	23.2	25.6	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	27.9
1.75	75.4	25.6	54	23.2	25.6	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	30.3
2	77.6	27.7	60.9	25.4	27.7	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	30.1
2.25	80.2	30.3	63.5	27.9	30.3	23.2	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	30.3
2.5	82.6	32.7	68.3	30.3	32.7	23.2	20.8	23.2	20.8	20.8	20.8	20.8	20.8	20.8	30.3
2.75	82.4	34.8	70.5	32.5	34.8	23	20.6	23	20.6	20.6	20.6	23	20.6	20.6	30.1
3	82.6	37.4	73.1	35	37.4	25.6	20.8	25.6	20.8	20.8	20.8	23.2	20.8	20.8	30.3
3.25	82.4	41.9	72.9	37.2	39.6	27.7	23	25.4	20.6	20.6	20.6	23	20.6	20.6	30.1
3.5	84.8	44.3	75.2	39.6	41.9	27.7	23	27.7	20.6	20.6	20.6	23	20.6	20.6	30.1
3.75	84.8	46.7	75.2	41.9	44.3	30.1	23	27.7	20.6	20.6	20.6	23	20.6	20.6	30.1
4	84.8	46.7	75.2	44.3	46.7	30.1	25.4	30.1	20.6	20.6	20.6	23	20.6	20.6	30.1
4.25	85	49.2	77.8	44.5	49.2	32.7	25.6	30.3	20.8	20.8	20.8	25.6	20.8	20.8	32.7
4.5	84.8	51.4	77.6	46.7	49	34.8	27.7	30.1	20.6	20.6	20.6	25.4	20.6	20.6	32.5
4.75	84.8	53.8	80	49	51.4	34.8	27.7	32.5	20.6	20.6	20.6	25.4	20.6	20.6	32.5
5	87.2	56.2	80	49	53.8	37.2	27.7	32.5	20.6	20.6	20.6	25.4	20.6	20.6	32.5
5.25	87.2	56.2	80	51.4	53.8	37.2	30.1	34.8	23	20.6	20.6	25.4	20.6	20.6	32.5
5.5	87.2	56.2	80	51.4	56.2	37.2	30.1	34.8	23	20.6	20.6	25.4	20.6	20.6	32.5
5.75	87.2	58.6	82.4	53.8	56.2	39.6	32.5	34.8	23	23	20.6	27.7	20.6	20.6	32.5
6	89.6	60.9	82.4	56.2	58.6	41.9	34.8	34.8	23	23	20.6	27.7	20.6	20.6	32.5
6.25	89.6	60.9	82.4	56.2	58.6	41.9	34.8	37.2	25.4	23	20.6	27.7	20.6	20.6	32.5
6.5	89.4	63.1	82.2	56	60.7	41.7	34.6	37	25.2	22.8	20.4	27.5	20.4	20.4	32.3
6.75	89.6	63.3	82.4	58.6	60.9	44.3	37.2	37.2	25.4	25.4	20.6	27.7	20.6	20.6	32.5
7	89.8	63.5	82.6	58.8	63.5	44.5	37.4	39.8	25.6	25.6	20.8	30.3	20.8	20.8	35
7.25	89.6	65.7	82.4	60.9	63.3	46.7	37.2	39.6	27.7	25.4	20.6	30.1	20.6	23	34.8
7.5	89.6	65.7	82.4	60.9	63.3	46.7	39.6	41.9	27.7	25.4	20.6	30.1	20.6	23	34.8
7.75	92	65.7	84.8	63.3	65.7	49	39.6	41.9	30.1	27.7	23	30.1	20.6	23	34.8
8	91.8	67.9	84.6	63.1	65.5	48.8	41.7	41.7	29.9	29.9	22.8	32.3	20.4	22.8	34.6
8.25	92	68.1	84.8	65.7	68.1	51.4	41.9	44.3	30.1	30.1	23	32.5	20.6	23	34.8
8.5	91.8	67.9	84.6	65.5	67.9	51.2	44.1	44.1	32.3	29.9	22.8	32.3	20.4	22.8	34.6
8.75	91.8	70.3	84.6	65.5	67.9	53.6	44.1	44.1	32.3	29.9	25.2	32.3	20.4	22.8	34.6
9	91.8	70.3	84.6	67.9	67.9	53.6	44.1	44.1	32.3	32.3	22.8	32.3	20.4	25.2	34.6
9.25	94.2	70.3	87	67.9	70.3	53.6	46.5	44.1	34.6	32.3	25.2	32.3	20.4	25.2	34.6
9.5	94.2	72.7	84.6	67.9	70.3	53.6	46.5	44.1	34.6	32.3	25.2	34.6	20.4	25.2	34.6
9.75	94.2	72.7	87	70.3	70.3	53.6	46.5	46.5	34.6	34.6	25.2	34.6	20.4	25.2	34.6
10	96.6	72.7	87	70.3	70.3	56	48.8	46.5	37	34.6	25.2	34.6	22.8	25.2	34.6
10.25	96.6	72.7	87	70.3	72.7	56	48.8	46.5	37	34.6	25.2	34.6	20.4	25.2	34.6
10.5	99	75	87	70.3	72.7	56	51.2	48.8	37	37	27.5	34.6	20.4	25.2	34.6
10.75	99	75	87	72.7	72.7	58.4	51.2	48.8	39.4	37	27.5	37	22.8	27.5	37
11	99	75	87	72.7	72.7	58.4	51.2	48.8	39.4	37	27.5	37	22.8	27.5	37
11.25	99	75	87	72.7	72.7	60.7	53.6	48.8	39.4	37	27.5	37	22.8	27.5	37
11.5	101.4	77.4	87	72.7	75	60.7	53.6	48.8	39.4	39.4	29.9	37	22.8	27.5	37
11.75	101.4	77.4	89.4	72.7	75	60.7	53.6	48.8	41.7	39.4	29.9	37	22.8	27.5	37
12	101.2	77.2	89.2	74.8	74.8	62.9	55.8	51	41.5	39.2	29.7	36.8	22.6	27.3	36.8
12.25	103.8	77.4	89.4	75	75	63.1	56	51.2	41.7	41.7	29.9	37	22.8	29.9	37
12.5	103.6	77.2	89.2	74.8	74.8	62.9	55.8	53.4	43.9	41.5	29.7	39.2	25	29.7	36.8
12.75	106	77.2	89.2	74.8	74.8	62.9	55.8	53.4	43.9	41.5	32.1	39.2	25	29.7	36.8
13	106	77.2	89.2	77.2	77.2	65.3	55.8	53.4	43.9	41.5	32.1	39.2	25	29.7	36.8

13.25	108.6	79.8	89.4	77.4	77.4	65.5	58.4	53.6	46.5	44.1	32.3	39.4	25.2	29.9	39.4
13.5	108.6	79.8	91.8	77.4	79.8	65.5	58.4	53.6	46.5	44.1	34.6	39.4	25.2	32.3	37
13.75	111	79.8	91.8	77.4	77.4	65.5	58.4	53.6	46.5	44.1	34.6	39.4	25.2	32.3	37
14	113.2	79.6	91.6	77.2	77.2	67.7	60.5	53.4	46.3	46.3	34.4	39.2	25	32.1	39.2
14.25	113.2	82	91.6	79.6	79.6	67.7	60.5	53.4	48.6	46.3	34.4	41.5	25	32.1	39.2
14.5	118	82	94	79.6	79.6	67.7	62.9	53.4	48.6	46.3	34.4	41.5	27.3	32.1	39.2
14.75	118	82	94	82	79.6	67.7	62.9	53.4	48.6	48.6	36.8	41.5	27.3	32.1	39.2
15	120.4	82	94	82	79.6	67.7	62.9	53.4	51	48.6	36.8	41.5	27.3	34.4	39.2
15.25	122.8	82	96.4	82	79.6	70.1	62.9	53.4	51	48.6	36.8	41.5	27.3	34.4	39.2
15.5	125.2	82	96.4	82	82	70.1	65.3	55.8	53.4	51	39.2	41.5	27.3	34.4	39.2
15.75	130.1	84.4	98.8	82	82	70.1	65.3	55.8	53.4	51	39.2	41.5	27.3	34.4	39.2
16	132.5	84.4	101.2	82	82	72.5	65.3	53.4	53.4	51	39.2	43.9	27.3	34.4	39.2
16.25	137.3	84.4	101.2	84.4	82	72.5	65.3	55.8	53.4	51	39.2	41.5	29.7	34.4	41.5
16.5	141.9	86.6	103.4	84.2	84.2	72.3	67.5	55.6	53.2	50.8	41.3	43.7	29.5	34.2	41.3
16.75	146.9	86.8	106	86.8	84.4	74.8	67.7	55.8	55.8	53.4	41.5	43.9	29.7	34.4	41.5
17	151.6	86.6	108.2	86.6	84.2	74.6	67.5	55.6	55.6	53.2	41.3	43.7	29.5	36.6	41.3
17.25	159	89.2	110.8	86.8	86.8	74.8	67.7	58.2	55.8	53.4	41.5	43.9	29.7	36.8	41.5
17,5	164	89.4	113.4	87	87	77.4	70.3	58.4	56	53.6	44.1	44.1	32.3	37	41.7
17.75	168.7	91.6	118	89.2	89.2	77.2	70.1	58.2	58.2	53.4	43.9	46.3	32.1	36.8	41.5
18	173.5	91.6	120.4	91.6	89.2	79.6	70.1	58.2	58.2	55.8	43.9	46.3	32.1	39.2	41.5
18.25	178.3	94	125.2	91.6	91.6	79.6	72.5	58.2	60.5	55.8	46.3	46.3	32.1	39.2	41.5
18.5	183.1	94	127.6	94	91.6	82	72.5	60.5	60.5	55.8	43.9	46.3	32.1	39.2	41.5
18.75	188	96.4	132.5	94	94	82	74.8	60.5	62.9	58.2	43.9	46.3	32.1	39.2	41.5
19	192.8	96.4	134.9	94	94	84.4	74.8	60.5	62.9	58.2	46.3	48.6	34.4	39.2	41.5
19.25	195.2	98.8	139.7	96.4	96.4	84.4	77.2	60.5	62.9	60.5	46.3	48.6	34.4	39.2	41.5
19.5	199.8	98.6	141.9	96.2	96.2	86.6	77	62.7	62.7	60.3	46.1	48.4	34.2	39	43.7
19.75	202.4	98.8	144.5	98.8	96.4	86.8	79.6	62.9	65.3	60.5	48.6	48.6	34.4	39.2	43.9
20	204.9	101.2	149.3	98.8	98.8	89.2	79.6	62.9	65.3	62.9	48.6	48.6	34.4	41.5	43.9
20.25	209.7	101.2	151.8	98.8	98.8	91.6	82	65.3	67.7	62.9	48.6	48.6	36.8	41.5	43.9
20.5	212.1	101.2	154.2	101.2	98.8	91.6	82	62.9	67.7	62.9	48.6	48.6	36.8	41.5	43.9
20.75	216.7	101	158.8	101	101	93.8	84.2	65.1	69.9	65.1	50.8	50.8	36.6	41.3	43.7
21	219.1	101	161.2	101	101	93.8	86.6	65.1	69.9	65.1	50.8	50.8	36.6	41.3	43.7
21.25	221.5	101	163.6	101	101	93.8	86.6	67.5	72.3	65.1	50.8	50.8	36.6	43.7	43.7
21.5	226.3	103.4	166	103.4	101	96.2	89	67.5	72.3	67.5	53.2	50.8	36.6	43.7	43.7
21.75	229	103.6	168.7	103.6	101.2	96.4	89.2	70.1	74.8	67.7	53.4	53.4	39.2	43.9	43.9
22	233.6	103.4	173.3	103.4	103.4	96.2	91.4	72.3	77	69.9	53.2	53.2	36.6	43.7	43.7
22.25	236	105.8	175.7	105.8	103.4	96.2	91.4	72.3	77	69.9	53.2	53.2	39	43.7	43.7
22.5	238.6	106	178.3	106	103.6	98.8	94	72.5	79.6	72.5	53.4	53.4	39.2	43.9	43.9
22.75	243.2	108.2	180.5	108.2	105.8	98.6	93.8	74.6	79.4	72.3	55.6	53.2	39	43.7	46.1
23	245.6	108.2	182.9	108.2	105.8	98.6	96.2	74.6	81.8	74.6	55.6	53.2	39	46.1	43.7
23.25	250.4	110.6	187.8	108.2	108.2	98.6	96.2	74.6	81.8	74.6	55.6	55.6	39	46.1	46.1
23.5	255.2	110.6	190.2	110.6	108.2	98.6	98.6	77	84.2	77	58	55.6	39	46.1	46.1
23.75	257.6	113	192.6	113	108.2	98.6	98.6	79.4	84.2	79.4	58	55.6	41.3	46.1	46.1
24	262.4	113	197.4	113	110.6	98.6	98.6	79.4	86.6	79.4	60.3	58	41.3	46.1	46.1
24.25	267.2	115.4	199.8	115.4	113	98.6	98.6	81.8	89	81.8	60.3	58	41.3	46.1	46.1
24.5	269.6	117.8	202.2	117.8	115.4	98.6	101	81.8	89	81.8	62.7	60.3	41.3	46.1	46.1
24.75	274.5	120.4	204.9	118	115.6	101.2	101.2	84.4	91.6	84.4	62.9	60.5	41.5	48.6	46.3
25	279.1	122.6	207.1	120.2	117.8	101	101	84.2	91.4	86.6	62.7	60.3	41.3	48.4	46.1
25.25	283.9	122.6	211.9	120.2	120.2	101	101	86.6	91.4	89	65.1	62.7	43.7	48.4	46.1
25.5	288.7	127.4	216.7	122.6	120.2	101	101	86.6	93.8	89	65.1	62.7	43.7	48.4	48.4
25.75	293.4	127.4	219.1	125	122.6	101	101	89	93.8	91.4	67.5	62.7	43.7	48.4	48.4
26	298.2	129.9	223.9	127.4	125	101	101	89	96.2	91.4	67.5	65.1	43.7	50.8	48.4
26.25	305.3	132.3	226.3	129.9	127.4	103.4	101	91.4	96.2	93.8	67.5	65.1	46.1	50.8	48.4
26.5	310.1	134.7	231.2	129.9	129.9	101	101	91.4	96.2	93.8	69.9	65.1	46.1	50.8	48.4
26.75	317.4	139.7	236.2	132.5	130.1	103.6	101.2	91.6	98.8	96.4	70.1	67.7	46.3	51	48.6
27	324.5	142.1	241	134.9	132.5	103.6	101.2	94	98.8	96.4	72.5	67.7	46.3	51	48.6
27.25	329.2	144.5	245.8	137.3	137.3	103.6	101.2	96.4	98.8	98.8	74.8	70.1	46.3	51	48.6
27.5	336.1	149.1	250.4	141.9	139.5	105.8	101	96.2	98.6	98.6	74.6	69.9	46.1	50.8	48.4

27.75	343.4	151.8	255.4	144.5	142.1	106	101.2	96.4	98.8	98.8	77.2	70.1	46.3	53.4	51
28	347.7	153.8	259.8	146.5	144.1	108	100.8	98.4	100.8	98.4	76.8	69.7	48.2	53	50.6
28.25	355	158.8	264.8	149.1	146.7	110.6	101	98.6	98.6	98.6	79.4	72.3	48.4	53.2	50.8
28.5	359.7	161.2	269.6	151.6	151.6	110.6	103.4	101	98.6	98.6	79.4	72.3	48.4	53.2	50.8
28.75	364.4	166	274.3	154	154	113	101	101	101	101	81.8	74.6	48.4	53.2	50.8
29	369.1	168.5	279.1	158.8	156.4	113	101	101	101	101	81.8	74.6	50.8	53.2	50.8
29.25	373.8	170.9	283.9	161.2	158.8	115.4	101	101	98.6	101	84.2	74.6	50.8	55.6	50.8
29.5	378.6	175.9	286.5	163.8	163.8	118	103.6	103.6	101.2	101.2	84.4	77.2	51	55.8	53.4
29.75	383.1	178.1	291.1	166	166	117.8	103.4	103.4	101	101	86.6	77	50.8	55.6	50.8
30	385.4	180.5	295.8	170.9	168.5	120.2	103.4	103.4	101	101	86.6	79.4	53.2	55.6	53.2
30.25	390.1	185.4	300.6	173.3	173.3	122.6	103.4	103.4	101	101	89	79.4	53.2	55.6	53.2
30.5	392.4	187.8	305.3	178.1	175.7	125	103.4	103.4	101	101	89	81.8	53.2	58	53.2
30.75	397.1	192.6	307.7	180.5	178.1	127.4	105.8	103.4	101	101	91.4	81.8	53.2	58	53.2
31	401.6	194.8	312.3	182.7	182.7	129.7	105.6	103.2	100.8	100.8	91.2	81.6	53	60.1	53
31.25	404.1	197.4	317.2	187.8	185.4	129.9	105.8	103.4	101	101	91.4	84.2	55.6	60.3	53.2
31.5	408.7	202.2	321.9	190.2	187.8	132.3	105.8	103.4	101	101	93.8	84.2	55.6	60.3	53.2
31.75	413.2	204.5	326.5	192.4	192.4	134.5	108	103.2	100.8	100.8	93.6	86.4	55.4	60.1	53
32	418	207.1	329	195	195	137.1	108.2	105.8	101	101	96.2	86.6	55.6	62.7	53.2
32.25	422.7	209.5	333.8	197.4	197.4	139.5	110.6	105.8	101	101	96.2	89	58	62.7	53.2
32.5	425	214.3	338.5	199.8	199.8	141.9	110.6	105.8	101	101	96.2	91.4	58	62.7	55.6
32.75	429.6	216.7	343.2	204.7	204.7	144.3	110.6	105.8	101	101	96.2	91.4	60.3	62.7	55.6
33	434.2	219.1	347.9	207.1	207.1	146.7	113	108.2	101	101	96.2	91.4	60.3	62.7	55.6
33.25	436.5	223.9	352.6	209.5	207.1	149.1	113	105.8	101	101	98.6	91.4	60.3	65.1	55.6
33.5	441.2	226.3	359.7	211.9	211.9	151.6	115.4	108.2	101	101	98.6	91.4	62.7	65.1	55.6
33.75	445.8	228.8	364.4	216.7	216.7	154	115.4	108.2	101	101	98.6	93.8	62.7	65.1	55.6
34	450.4	231.2	369.1	219.1	219.1	156.4	117.8	110.6	101	101	98.6	93.8	62.7	67.5	55.6
34.25	452.9	236.2	374	221.7	221.7	159	118	110.8	101.2	101.2	98.8	96.4	62.9	67.7	55.8
34.5	455	238.4	378.4	223.9	223.9	161.2	120.2	110.6	101	101	98.6	96.2	65.1	67.5	55.6
34.75	459.6	240.8	380.8	228.8	226.3	166	122.6	110.6	101	101	101	96.2	65.1	69.9	55.6
35	461.9	243.2	387.8	231.2	228.8	166	122.6	113	101	101	98.6	98.6	67.5	69.9	55.6
35.25	464.4	248.2	390.3	233.8	233.8	168.7	125.2	113.2	101.2	101.2	101.2	98.8	67.7	72.5	55.8
35.5	466.5	250.4	394.8	236	236	173.3	127.4	113	101	101	101	98.6	67.5	72.3	58
35.75	468.8	252.8	399.4	238.4	238.4	175.7	129.9	113	101	101	101	101	69.9	72.3	58
36	471.3	255.4	402	243.4	241	178.3	130.1	118	101.2	101.2	101.2	101.2	70.1	74.8	58.2
36.25	473.6	257.8	406.6	245.8	243.4	180.7	132.5	115.6	101.2	101.2	101.2	101.2	72.5	74.8	58.2
36.5	475.9	260.2	411.3	248.2	245.8	183.1	132.5	118	103.6	101.2	101.2	101.2	72.5	74.8	58.2
36.75	478.2	265	413.6	250.6	248.2	188	137.3	118	103.6	101.2	101.2	101.2	72.5	77.2	58.2
37	478.2	265	418.2	255.4	253	188	139.7	120.4	103.6	101.2	101.2	101.2	74.8	77.2	58.2
37.25	480.5	269.8	420.5	255.4	255.4	192.8	139.7	120.4	103.6	101.2	101.2	101.2	74.8	79.6	60.5
37.5	489.5	272	425	260	257.6	195	141.9	122.6	103.4	101	101	103.4	77	79.4	60.3
37.75	494.3	274.5	427.5	262.6	260.2	197.6	144.5	122.8	106	101.2	101.2	103.6	77.2	79.6	60.5
38	494.3	276.9	432.1	265	262.6	200	146.9	125.2	106	101.2	101.2	103.6	77.2	82	60.5
38.25	496.6	279.3	434.4	267.4	265	204.9	149.3	125.2	108.4	101.2	101.2	103.6	79.6	82	60.5
38.5	496.6	281.7	436.7	269.8	267.4	207.3	151.8	127.6	108.4	101.2	101.2	103.6	79.6	84.4	60.5
38.75	498.6	283.9	438.9	274.3	269.6	209.5	154	129.9	108.2	101	101	103.4	81.8	84.2	60.3
39	498.8	286.5	443.7	276.9	272.2	212.1	156.6	127.6	110.8	101.2	101.2	106	82	84.4	62.9
39.25	498.6	288.7	443.5	279.1	274.3	214.3	158.8	129.9	110.6	101	101	105.8	81.8	86.6	62.7
39.5	501.1	293.6	448.3	281.7	276.9	219.3	161.4	132.5	113.2	101.2	101.2	106	84.4	86.8	62.9
39.75	501.1	296	450.6	284.1	279.3	221.7	163.8	132.5	113.2	101.2	101.2	106	84.4	89.2	62.9
40	500.9	295.8	452.7	286.3	283.9	223.9	166	134.7	115.4	101	101	105.8	86.6	89	62.7
40.25	503.4	300.8	455.2	288.9	284.1	226.5	168.7	134.9	118	101.2	101.2	108.4	86.8	91.6	62.9
40.5	503.4	303.2	455.2	291.3	286.5	229	171.1	137.3	118	101.2	101.2	108.4	86.8	91.6	62.9
40.75	505.7	303.2	457.5	293.6	288.9	231.4	173.5	139.7	120.4	101.2	101.2	108.4	89.2	91.6	62.9
41	505.7	305.5	459.8	296	293.6	233.8	175.9	139.7	120.4	101.2	101.2	108.4	89.2	91.6	62.9
41.25	505.5	310.1	461.9	300.6	293.4	236	178.1	141.9	120.2	103.4	101	108.2	91.4	93.8	65.1
41.5	507.8	312.5	461.9	303	295.8	238.4	180.5	144.3	122.6	103.4	101	108.2	91.4	93.8	65.1
41.75	512.6	312.7	464.4	303.2	298.4	241	183.1	144.5	125.2	103.6	101.2	110.8	91.6	96.4	65.3
42	514.9	315	471.3	307.9	303.2	243.4	188	146.9	127.6	103.6	101.2	110.8	91.6	96.4	65.3

42.25	514.7	319.6	473.4	310.1	305.3	245.6	190.2	146.7	127.4	103.4	101	110.6	93.8	96.2	65.1
42.5	514.9	319.8	473.6	312.7	307.9	250.6	192.8	149.3	130.1	106	101.2	113.2	94	96.4	65.3
42.75	517.2	322.1	475.9	315	310.3	253	195.2	151.8	130.1	106	101.2	113.2	96.4	98.8	65.3
43	517.4	324.7	478.4	320	312.9	255.6	197.8	152	132.7	106.2	101.4	113.4	96.6	99	65.5
43.25	517.2	326.9	478.2	324.5	315	255.4	197.6	154.2	134.9	108.4	101.2	115.6	96.4	98.8	67.7
43.5	517.2	329.2	480.5	326.9	315	257.8	202.4	154.2	134.9	108.4	101.2	115.6	96.4	98.8	67.7
43.75	517.4	331.8	483	331.8	320	262.8	205.1	156.8	137.5	111	101.4	115.8	96.6	101.4	67.9
44	517.2	334	485.1	331.6	319.8	265	207.3	156.6	139.7	110.8	101.2	118	98.8	101.2	67.7
44.25	517.2	334	485.1	336.3	322.1	265	209.7	159	139.7	110.8	101.2	118	98.8	101.2	67.7
44.5	517.2	338.7	487.4	338.7	324.5	267.4	209.7	161.4	142.1	113.2	101.2	118	98.8	101.2	67.7
44.75	519.5	338.7	487.4	338.7	326.9	272.2	212.1	161.4	144.5	113.2	101.2	118	98.8	101.2	70.1
45	519.5	341.1	489.7	345.8	329.2	274.5	216.9	163.8	146.9	115.6	101.2	120.4	98.8	101.2	70.1
45.25	517.4	343.6	489.9	348.3	331.8	274.7	217.1	164	147.1	115.8	101.4	120.6	101.4	101.4	70.3
45.5	517.2	345.8	489.7	350.5	334	276.9	219.3	166.2	149.3	118	101.2	120.4	101.2	101.2	70.1
45.75	517.2	348.1	492	350.5	336.3	279.3	221.7	166.2	151.8	118	101.2	122.8	101.2	101.2	70.1
46	519.5	348.1	494.3	355.2	338.7	281.7	224.1	168.7	154.2	120.4	101.2	122.8	101.2	101.2	70.1
46.25	517.2	350.5	494.3	357.5	341.1	284.1	226.5	168.7	154.2	120.4	101.2	122.8	101.2	101.2	70.1
46.5	519.5	352.8	494.3	359.9	343.4	286.5	229	171.1	156.6	120.4	101.2	125.2	101.2	101.2	70.1
46.75	517.2	355.2	494.3	359.9	345.8	288.9	231.4	171.1	159	122.8	101.2	125.2	101.2	101.2	72.5
47	519.5	357.5	496.6	362.2	348.1	291.3	233.8	173.5	159	125.2	101.2	125.2	101.2	101.2	72.5
47.25	519.5	357.5	496.6	364.6	350.5	293.6	233.8	175.9	161.4	125.2	101.2	127.6	101.2	101.2	72.5
47.5	519.3	359.7	496.4	366.7	350.3	293.4	236	175.7	163.6	127.4	101	127.4	101	101	72.3
47.75	519.5	359.9	498.8	369.3	352.8	296	238.6	178.3	163.8	127.6	101.2	127.6	101.2	101.2	72.5
48	519.5	362.2	498.8	371.6	355.2	298.4	241	178.3	166.2	130.1	101.2	130.1	101.2	101.2	72.5
48.25	519.5	364.6	498.8	374	357.5	300.8	243.4	180.7	168.7	130.1	101.2	130.1	101.2	101.2	74.8
48.5	519.5	366.9	501.1	376.3	359.9	303.2	243.4	180.7	171.1	132.5	101.2	130.1	101.2	101.2	74.8
48.75	521.7	366.9	501.1	376.3	359.9	305.5	245.8	183.1	171.1	134.9	101.2	130.1	101.2	101.2	74.8
49	521.9	369.5	501.3	378.8	362.4	305.7	248.4	183.3	173.7	135.1	101.4	132.7	101.4	101.4	75
49.25	521.7	371.6	503.4	381	364.6	307.9	250.6	185.6	175.9	137.3	101.2	132.5	101.2	101.2	74.8
49.5	521.7	371.6	503.4	383.3	366.9	310.3	250.6	185.6	178.3	137.3	101.2	132.5	101.2	101.2	74.8
49.75	524	374	503.4	385.6	366.9	312.7	253	188	178.3	139.7	101.2	134.9	101.2	103.6	74.8
50	524.2	374.2	505.9	388.2	369.5	312.9	255.6	188.2	180.9	139.9	101.4	135.1	101.4	101.4	75
50.25	524	376.3	505.7	388	369.3	315	255.4	188	183.1	142.1	101.2	137.3	103.6	103.6	74.8
50.5	524	378.6	505.7	390.3	374	317.4	257.8	190.4	183.1	144.5	101.2	137.3	101.2	103.6	77.2
50.75	526.3	378.6	508	392.6	374	319.8	260.2	192.8	185.6	146.9	101.2	137.3	101.2	101.2	77.2
51	526.5	381.2	508.2	395.2	376.5	322.3	262.8	193	188.2	147.1	103.8	137.5	101.4	103.8	77.4
51.25	526.3	383.3	508	395	376.3	322.1	262.6	195.2	190.4	149.3	103.6	139.7	101.2	103.6	77.2
51.5	528.6	385.6	510.3	397.3	378.6	324.5	265	195.2	190.4	149.3	103.6	139.7	101.2	103.6	77.2
51.75	528.6	385.6	510.3	399.6	381	326.9	265	197.6	192.8	151.8	103.6	139.7	101.2	103.6	77.2
52	528.6	388	510.3	402	381	329.2	267.4	195.2	195.2	154.2	103.6	139.7	101.2	103.6	77.2
52.25	530.9	388	512.6	404.3	383.3	329.2	269.8	197.6	197.6	156.6	103.6	142.1	101.2	101.2	79.6
52.5	530.9	390.3	514.9	404.3	383.3	331.6	272.2	197.6	197.6	156.6	103.6	142.1	101.2	103.6	79.6
52.75	530.9	390.3	514.9	408.9	385.6	334	274.5	200	200	159	106	144.5	101.2	103.6	79.6
53	533.2	392.6	514.9	408.9	385.6	336.3	274.5	202.4	202.4	161.4	106	144.5	101.2	103.6	79.6
53.25	533.2	395	517.2	411.3	388	338.7	276.9	202.4	204.9	161.4	106	144.5	101.2	103.6	79.6
53.5	533.2	397.3	517.2	413.6	388	341.1	279.3	204.9	204.9	163.8	108.4	144.5	101.2	103.6	79.6
53.75	533.4	397.5	517.4	413.8	390.5	341.3	279.5	205.1	207.5	166.4	108.6	144.7	101.4	101.4	79.8
54	535.5	399.6	519.5	415.9	390.3	343.4	281.7	204.9	209.7	168.7	108.4	146.9	101.2	103.6	82
54.25	535.5	399.6	519.5	418.2	392.6	345.8	284.1	204.9	209.7	168.7	108.4	146.9	101.2	103.6	79.6
54.5	535.5	402	519.5	420.5	395	348.1	284.1	207.3	212.1	171.1	110.8	146.9	101.2	103.6	82
54.75	535.5	404.3	521.7	422.9	395	350.5	286.5	209.7	214.5	173.5	110.8	146.9	101.2	103.6	82
55	535.5	404.3	521.7	422.9	397.3	352.8	288.9	207.3	216.9	173.5	113.2	149.3	101.2	103.6	82
55.25	535.5	406.6	521.7	425.2	399.6	352.8	291.3	209.7	216.9	175.9	113.2	149.3	101.2	103.6	82
55.5	535.7	406.8	524.2	427.7	399.8	357.7	291.5	209.9	219.5	178.5	115.8	149.5	101.4	103.8	82.2
55.75	537.7	408.9	524	427.5	402	359.9	293.6	212.1	221.7	180.7	115.6	149.3	103.6	103.6	82
56	537.5	408.7	523.8	429.6	404.1	359.7	293.4	214.3	221.5	180.5	115.4	151.6	101	103.4	81.8
56.25	537.5	411.1	526.1	431.9	404.1	362	295.8	214.3	226.3	182.9	117.8	151.6	101	103.4	81.8
56.5	537.7	413.6	526.3	432.1	406.6	362.2	298.4	216.9	226.5	183.1	118	151.8	101.2	103.6	82

56.75	537.9	413.8	526.5	434.6	406.8	367.1	301	214.7	229.2	185.8	120.6	152	101.4	103.8	82.2
57	537.9	416.1	528.8	434.6	409.1	367.1	303.4	217.1	229.2	188.2	120.6	154.4	101.4	103.8	84.6
57.25	537.9	416.1	528.8	436.9	411.5	369.5	303.4	217.1	231.6	190.6	123	154.4	103.8	103.8	84.6
57.5	538.1	418.6	529	437.1	414	372	305.9	217.3	234.2	190.8	123.2	154.6	101.6	104	84.8
57.75	537.9	420.7	528.8	439.3	413.8	371.8	308.1	219.5	236.4	193	125.4	156.8	103.8	103.8	84.6
58	537.9	420.7	531.1	439.3	416.1	374.2	308.1	219.5	236.4	195.4	125.4	156.8	103.8	103.8	84.6
58.25	537.9	423.1	531.1	441.6	418.4	376.5	310.5	221.9	238.8	195.4	125.4	156.8	101.4	103.8	84.6
58.5	537.9	423.1	531.1	441.6	420.7	376.5	312.9	221.9	241.2	197.8	127.8	156.8	101.4	106.2	84.6
58.75	537.9	425.4	531.1	443.9	423.1	378.8	312.9	224.3	241.2	197.8	130.3	156.8	103.8	106.2	84.6
59	537.9	425.4	533.4	443.9	423.1	378.8	315.2	224.3	243.6	200.2	130.3	159.2	101.4	106.2	84.6
59.25	538.1	427.9	533.6	446.4	425.6	381.4	317.8	226.9	246.2	202.8	130.5	159.4	104	106.4	84.8
59.5	538.1	427.9	533.6	446.4	427.9	383.7	317.8	226.9	246.2	205.3	132.9	159.4	104	106.4	87.2
59.75	538.1	430.2	535.9	448.7	430.2	383.7	320.2	226.9	248.6	205.3	132.9	159.4	101.6	106.4	87.2
60	538.1	432.5	535.9	448.7	432.5	386	322.5	229.4	251	207.7	135.3	161.8	101.6	106.4	87.2
60.25	538.1	432.5	535.9	451	432.5	388.4	324.9	229.4	251	207.7	135.3	161.8	104	106.4	87.2
60.5	538.3	435	536.1	451.2	435	388.6	325.1	229.6	253.6	210.3	137.9	162	101.8	106.6	87.4
60.75	538.1	434.8	535.9	453.3	437.1	390.7	327.3	231.8	255.8	210.1	140.1	161.8	101.6	106.4	87.2
61	538.1	437.1	535.9	453.3	439.5	393	329.6	231.8	255.8	212.5	140.1	161.8	104	106.4	87.2
61.25	538.1	439.5	538.1	453.3	441.8	393	329.6	231.8	258.2	214.9	140.1	164.2	101.6	106.4	87.2
61.5	538.3	439.7	538.3	455.8	444.3	395.6	332.2	234.4	258.4	215.1	142.7	164.4	104.2	106.6	87.4
61.75	538.3	444.3	540.6	455.8	446.6	397.9	332.2	236.8	260.8	217.5	145.1	164.4	101.8	109	89.8
62	538.3	444.3	538.3	458.1	448.9	400.2	334.6	236.8	263.2	217.5	145.1	164.4	104.2	109	89.8
62.25	536.1	444.3	540.6	458.1	448.9	402.6	336.9	239.2	265.6	219.9	147.5	166.8	104.2	109	89.8
62.5	538.1	446.4	540.4	457.9	451	402.4	339.1	236.6	265.4	222.1	147.3	166.6	104	108.8	89.6
62.75	538.1	446.4	540.4	457.9	453.3	404.7	339.1	239	267.8	222.1	149.7	166.6	101.6	108.8	89.6
63	538.3	448.9	542.9	458.1	455.8	407.2	341.7	241.6	268	224.7	152.4	166.8	104.2	109	89.8
63.25	538.3	451.2	542.9	460.4	458.1	409.5	344	241.6	270.4	224.7	152.4	166.8	104.2	109	89.8
63.5	538.3	451.2	542.9	460.4	458.1	409.5	344	241.6	270.4	227.1	154.8	169.3	104.2	109	89.8
63.75	538.1	453.3	545	460.2	460.2	411.7	346.2	241.4	272.6	226.9	154.6	169.1	104	108.8	89.6
64	538.1	455.6	545	460.2	462.5	414	348.5	241.4	274.9	229.4	157	169.1	104	108.8	89.6
64.25	538.1	455.6	545	462.5	462.5	414	350.9	243.8	274.9	229.4	157	169.1	101.6	108.8	89.6
64.5	538.3	458.1	545.2	462.7	465	416.5	351.1	246.4	277.5	232	159.6	171.7	104.2	109	89.8
64.75	538.1	457.9	547.3	462.5	464.8	416.3	353.2	246.2	279.7	234.2	159.4	171.5	104	108.8	89.6
65	538.3	460.4	547.5	462.7	467.3	418.8	355.8	246.4	279.9	234.4	162	171.7	101.8	109	89.8
65.25	538.1	460.2	547.3	464.8	469.4	418.6	357.9	246.2	282.1	236.6	164.2	171.5	101.6	108.8	89.6
65.5	538.3	462.7	547.5	465	471.9	421.1	360.5	248.8	284.7	236.8	166.8	171.7	101.8	111.4	92.2
65.75	538.1	462.5	547.3	464.8	471.7	423.3	360.3	248.6	284.5	236.6	166.6	171.5	101.6	111.2	92
66	538.3	462.7	547.5	467.3	471.9	423.5	360.5	251.2	284.7	239.2	169.3	171.7	104.2	111.4	92.2
66.25	538.1	464.8	549.6	467.1	474	425.6	362.6	251	286.9	241.4	169.1	173.9	104	111.2	89.6
66.5	538.1	464.8	549.6	469.4	474	425.6	365	253.4	286.9	241.4	171.5	173.9	104	111.2	92
66.75	538.1	467.1	549.6	469.4	476.3	427.9	367.3	251	289.3	243.8	171.5	173.9	104	111.2	92
67	538.1	467.1	549.6	469.4	476.3	427.9	369.7	253.4	291.7	246.2	173.9	173.9	104	111.2	92
67.25	538.1	469.4	549.6	471.7	478.6	430.2	369.7	253.4	294	246.2	176.3	176.3	104	111.2	92
67.5	538.3	469.6	549.8	471.9	478.8	430.4	372.2	256	294.2	246.4	176.5	176.5	104.2	111.4	92.2
67.75	540.6	471.9	549.8	471.9	481.1	432.7	372.2	256	296.6	248.8	178.9	176.5	104.2	111.4	92.2
68	540.4	471.7	549.6	471.7	480.9	432.5	374.4	255.8	296.4	251	181.1	176.3	104	111.2	92
68.25	540.6	471.9	552.1	474.2	481.1	432.7	376.9	258.4	299	251.2	181.3	176.5	104.2	113.8	92.2
68.5	540.6	471.9	552.1	474.2	483.4	435	376.9	258.4	299	253.6	183.7	176.5	104.2	111.4	92.2
68.75	540.6	474.2	552.1	474.2	483.4	435	376.9	258.4	301.4	253.6	186.2	178.9	104.2	113.8	92.2
69	540.6	474.2	552.1	474.2	483.4	437.3	379.2	260.8	303.8	256	186.2	178.9	104.2	113.8	92.2
69.25	540.6	474.2	552.1	474.2	483.4	437.3	381.6	260.8	303.8	256	188.6	178.9	104.2	113.8	92.2
69.5	540.6	474.2	552.1	476.5	483.4	437.3	381.6	263.2	306.1	258.4	188.6	178.9	104.2	113.8	92.2
69.75	542.9	474.2	552.1	476.5	485.7	437.3	381.6	263.2	308.5	258.4	191	178.9	104.2	113.8	92.2
70	542.9	474.2	552.1	476.5	483.4	439.7	383.9	263.2	308.5	260.8	193.4	181.3	104.2	113.8	92.2
70.25	540.6	474.2	552.1	476.5	483.4	439.7	386.2	263.2	310.9	260.8	193.4	181.3	104.2	113.8	94.6
70.5	540.6	474.2	554.3	476.5	485.7	442	386.2	265.6	310.9	263.2	195.8	181.3	104.2	113.8	92.2
70.75	542.9	474.2	552.1	478.8	485.7	442	388.6	268	313.3	263.2	198.2	181.3	104.2	116.2	92.2
71	542.9	476.5	554.3	478.8	485.7	444.3	388.6	265.6	313.3	265.6	198.2	181.3	104.2	116.2	92.2

71.25	542.9	476.5	554.3	478.8	485.7	444.3	388.6	268	315.6	265.6	200.6	181.3	104.2	116.2	94.6
71.5	543.1	476.7	554.5	479	485.9	444.5	391.1	270.6	315.8	268.2	200.8	183.9	104.4	116.4	94.8
71.75	543.1	476.7	554.5	479	488.2	444.5	393.4	270.6	318.2	270.6	203.2	183.9	104.4	116.4	92.4
72	542.9	476.5	554.3	478.8	488	446.6	393.2	270.4	320.4	270.4	205.5	183.7	104.2	116.2	94.6
72.25	542.9	476.5	554.3	481.1	488	446.6	393.2	270.4	320.4	272.8	205.5	183.7	104.2	116.2	94.6
72.5	543.1	476.7	556.8	481.3	488.2	449.1	395.8	273	322.9	273	208.1	183.9	104.4	118.8	94.8
72.75	542.9	478.8	554.3	481.1	488	448.9	397.9	272.8	322.7	275.1	207.9	186.2	104.2	118.6	94.6
73	542.9	478.8	556.6	481.1	488	448.9	397.9	275.1	325.1	275.1	210.3	186.2	104.2	118.6	94.6
73.25	542.9	478.8	556.6	481.1	490.3	451.2	400.2	275.1	327.5	277.5	210.3	186.2	104.2	118.6	94.6
73.5	542.9	481.1	556.6	481.1	490.3	451.2	400.2	277.5	327.5	279.9	212.7	186.2	104.2	118.6	94.6
73.75	542.9	481.1	556.6	483.4	490.3	451.2	402.6	277.5	329.8	279.9	215.1	186.2	104.2	118.6	94.6
74	542.9	481.1	556.6	483.4	492.6	453.5	402.6	279.9	329.8	279.9	215.1	186.2	104.2	118.6	94.6
74.25	540.6	481.1	556.6	483.4	492.6	453.5	404.9	279.9	332.2	282.3	217.5	188.6	104.2	118.6	94.6
74.5	540.6	481.1	556.6	483.4	492.6	453.5	404.9	279.9	332.2	282.3	217.5	188.6	104.2	121	94.6
74.75	540.6	483.4	556.6	483.4	494.9	453.5	404.9	282.3	334.6	284.7	219.9	188.6	106.6	121	94.6
75	540.6	483.4	556.6	483.4	494.9	455.8	407.2	282.3	336.9	287.1	222.3	188.6	104.2	121	94.6
75.25	540.6	483.4	556.6	485.7	494.9	455.8	407.2	284.7	336.9	287.1	222.3	188.6	106.6	121	94.6
75.5	540.6	483.4	558.9	485.7	494.9	455.8	409.5	284.7	339.3	287.1	224.7	191	106.6	121	97
75.75	540.6	485.7	558.9	485.7	494.9	458.1	409.5	284.7	339.3	289.5	227.1	191	106.6	121	94.6
76	540.8	485.9	559.1	485.9	497.4	458.3	412.1	284.9	341.9	292.1	227.3	191.2	106.8	121.2	94.8
76.25	540.6	485.7	558.9	488	497.2	458.1	411.9	287.1	344	291.9	229.6	191	106.6	121	94.6
76.5	540.6	485.7	558.9	488	497.2	460.4	414.2	287.1	344	294.2	229.6	193.4	106.6	121	97
76.75	540.6	485.7	561.2	488	497.2	460.4	414.2	289.5	346.4	294.2	232	193.4	106.6	123.4	94.6
77	540.6	485.7	561.2	488	497.2	460.4	416.5	289.5	346.4	296.6	232	193.4	106.6	123.4	97
77.25	538.3	488	561.2	488	497.2	462.7	416.5	291.9	348.7	296.6	234.4	193.4	106.6	123.4	97
77.5	538.3	488	561.2	488	499.5	462.7	418.8	291.9	351.1	299	234.4	195.8	109	123.4	97
77.75	538.3	488	561.2	490.3	499.5	462.7	418.8	294.2	351.1	299	236.8	195.8	109	123.4	97
78	538.5	488.2	561.4	490.5	499.7	462.9	421.3	294.4	353.6	301.6	239.4	196	109.2	126	97.2
78.25	536.3	488.2	561.4	490.5	499.7	465.2	421.3	294.4	356	301.6	239.4	196	109.2	126	97.2
78.5	533.8	488	563.5	490.3	499.5	465	421.1	294.2	355.8	303.8	241.6	195.8	109	125.8	97
78.75	531.5	488	561.2	492.6	499.5	465	423.5	296.6	358.1	306.1	241.6	195.8	109	125.8	97
79	531.5	488	563.5	492.6	499.5	467.3	423.5	299	360.5	306.1	244	198.2	109	125.8	97
79.25	531.7	488.2	563.7	492.8	499.7	467.5	426	296.8	360.7	308.7	244.2	198.4	109.2	126	97.2
79.5	531.7	488.2	563.7	495.1	499.7	467.5	426	299.2	360.7	308.7	246.6	198.4	111.6	126	97.2
79.75	529.2	490.3	563.5	494.9	501.7	467.3	425.8	299	362.8	310.9	248.8	198.2	111.4	125.8	97
80	529.2	490.3	563.5	494.9	501.7	469.6	428.1	301.4	365.2	310.9	248.8	198.2	111.4	128.2	97
80.25	529.6	490.7	563.9	495.3	502.1	470	428.5	301.8	367.9	313.7	249.2	201	114.2	128.6	97.4
80.5	529.2	490.3	563.5	497.2	501.7	469.6	430.4	303.8	367.5	313.3	251.2	200.6	113.8	128.2	97
80.75	527.1	490.5	563.7	497.4	501.9	472.1	430.6	304	370.1	315.8	251.4	200.8	114	128.4	97.2
81	526.9	490.3	565.8	497.2	501.7	471.9	432.7	303.8	369.9	315.6	253.6	200.6	113.8	130.7	97
81.25	527.1	490.5	566	497.4	501.9	472.1	432.9	306.3	372.4	318.2	256.2	203.2	114	130.9	97.2
81.5	529.4	492.8	566	497.4	504.2	472.1	432.9	306.3	374.8	318.2	256.2	203.2	116.4	130.9	97.2
81.75	527.1	490.5	566	499.7	504.2	474.4	435.2	308.7	374.8	320.6	256.2	203.2	116.4	130.9	97.2
82	529.2	492.6	568.1	499.5	504	474.2	435	308.5	376.9	322.7	258.4	203	118.6	130.7	97
82.25	529.4	492.8	568.3	499.7	504.2	474.4	437.5	308.7	379.4	322.9	261	203.2	118.8	130.9	97.2
82.5	529.2	492.6	568.1	501.7	506.3	474.2	437.3	310.9	379.2	322.7	260.8	205.5	118.6	130.7	97
82.75	478.6	494.7	567.9	501.5	506.1	476.3	437.1	310.7	381.4	324.9	263	205.3	118.4	130.5	96.8
83	455.8	494.9	568.1	501.7	506.3	476.5	437.3	310.9	383.9	327.5	263.2	205.5	121	133.1	97
83.25	453.5	494.9	568.1	501.7	508.6	476.5	439.7	313.3	383.9	327.5	265.6	205.5	121	133.1	97
83.5	455.6	497	570.1	503.8	508.4	476.3	439.5	313.1	386	329.6	265.4	207.7	123.2	132.9	96.8
83.75	457.9	497	570.1	503.8	508.4	476.3	441.8	315.4	386	329.6	267.8	207.7	123.2	132.9	99.2
84	458.1	497.2	570.3	506.3	508.6	478.8	442	315.6	388.6	332.2	268	207.9	123.4	133.1	99.4
84.25	458.1	497.2	570.3	506.3	508.6	478.8	444.3	315.6	388.6	332.2	270.4	207.9	125.8	135.5	97
84.5	460.6	499.7	570.5	506.5	508.8	481.3	444.5	318.2	391.1	334.8	270.6	208.1	126	135.7	97.2
84.75	460.6	499.7	570.5	508.8	511.1	481.3	446.8	318.2	393.4	334.8	273	208.1	128.4	135.7	97.2
85	462.9	499.7	570.5	508.8	511.1	481.3	446.8	318.2	393.4	337.1	275.3	210.5	128.4	135.7	99.6
85.25	462.9	499.7	570.5	508.8	511.1	481.3	446.8	320.6	395.8	337.1	275.3	210.5	130.9	138.1	99.6
85.5	465.2	499.7	572.8	508.8	511.1	483.6	449.1	320.6	395.8	339.5	275.3	210.5	130.9	138.1	99.6

85.75	465	499.5	572.6	508.6	510.9	483.4	448.9	322.7	397.9	341.7	277.5	210.3	130.7	137.9	99.4
86	465.2	499.7	572.8	511.1	511.1	483.6	449.1	322.9	398.1	341.9	277.7	212.9	130.9	138.1	99.6
86.25	467.3	499.5	572.6	510.9	510.9	485.7	451.2	325.1	400.2	344	279.9	212.7	133.1	140.3	99.4
86.5	467.5	499.7	572.8	511.1	511.1	485.9	451.4	325.3	402.8	344.2	280.1	212.9	135.7	140.5	99.6
86.75	467.5	499.7	575.1	513.4	511.1	485.9	453.7	327.7	402.8	346.6	282.5	215.3	135.7	140.5	99.6
87	469.6	499.5	574.9	513.2	510.9	488	453.5	327.5	404.9	348.7	284.7	215.1	137.9	140.3	99.4
87.25	469.6	499.5	574.9	513.2	510.9	488	455.8	327.5	404.9	348.7	284.7	215.1	137.9	142.7	99.4
87.5	469.8	499.7	575.1	515.7	511.1	488.2	456	330	407.4	351.3	284.9	217.7	140.5	142.9	99.6
87.75	469.6	499.5	574.9	515.5	510.9	490.3	458.1	332.2	409.5	351.1	287.1	217.5	140.3	142.7	99.4
88	469.8	499.7	575.1	515.7	513.4	490.5	458.3	330	409.7	353.6	287.3	217.7	142.9	142.9	99.6
88.25	469.6	499.5	574.9	515.5	513.2	490.3	458.1	332.2	411.9	355.8	289.5	217.5	142.7	145.1	99.4
88.5	469.8	499.7	575.1	515.7	513.4	490.5	458.3	334.8	412.1	356	289.7	217.7	145.3	145.3	99.6
88.75	469.8	501.9	575.1	518	513.4	492.8	460.6	334.8	414.4	358.3	292.1	220.1	145.3	145.3	102
89	472.1	501.9	575.1	518	513.4	492.8	460.6	334.8	416.7	360.7	294.4	220.1	147.7	147.7	99.6
89.25	469.6	501.7	577.2	517.8	513.2	492.6	460.4	336.9	416.5	360.5	294.2	219.9	147.5	147.5	99.4
89.5	471.9	501.7	577.2	517.8	515.5	492.6	460.4	339.3	418.8	362.8	296.6	222.3	149.9	147.5	99.4

Test 3

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	40.5	24	21.6	26.3	19.2	21.6	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
0.5	57.2	26.3	21.6	28.7	19.2	21.6	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
0.75	66.7	28.7	24	31.1	19.2	24	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
1	73.8	31.1	24	35.8	19.2	24	21.6	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
1.25	81	33.4	26.3	40.5	19.2	26.3	21.6	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
1.5	83.6	38.4	28.9	43.1	19.4	28.9	21.8	19.4	19.4	19.4	19.4	19.4	19.4	19.4	21.8
1.75	86	40.7	33.6	50.2	21.8	31.3	24.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	21.8
2	86	45.5	36	52.6	21.8	33.6	24.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	21.8
2.25	85.8	47.6	38.2	54.8	24	35.8	26.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
2.5	88.2	50	40.5	59.5	24	38.2	26.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.6
2.75	88.4	52.6	43.1	62.1	26.5	40.7	28.9	21.8	19.4	19.4	19.4	19.4	19.4	19.4	21.8
3	88.4	52.6	43.1	62.1	26.5	43.1	31.3	19.4	19.4	21.8	19.4	19.4	19.4	19.4	21.8
3.25	90.6	54.8	47.6	64.3	28.7	45.3	33.4	21.6	19.2	21.6	19.2	19.2	19.2	19.2	24
3.5	90.8	57.4	47.8	66.9	28.9	47.8	33.6	21.8	19.4	21.8	19.4	19.4	19.4	19.4	21.8
3.75	90.8	59.7	50.2	69.3	31.3	50.2	36	21.8	19.4	24.2	19.4	19.4	19.4	19.4	24.2
4	90.8	62.1	52.6	69.3	33.6	50.2	38.4	21.8	19.4	24.2	19.4	19.4	19.4	19.4	21.8
4.25	90.8	62.1	52.6	71.7	33.6	52.6	40.7	21.8	19.4	24.2	19.4	19.4	19.4	19.4	24.2
4.5	90.8	64.5	55	71.7	36	52.6	40.7	24.2	19.4	26.5	19.4	19.4	19.4	19.4	24.2
4.75	93.2	64.5	55	71.7	36	55	43.1	24.2	19.4	26.5	19.4	19.4	19.4	19.4	24.2
5	95.8	64.7	57.6	74.2	36.2	55.2	43.3	26.7	19.6	29.1	19.6	19.6	19.6	19.6	24.4
5.25	95.6	66.9	57.4	74	38.4	57.4	45.5	24.2	19.4	28.9	19.4	19.4	19.4	19.4	24.2
5.5	95.8	69.5	59.9	76.6	40.9	57.6	45.7	26.7	19.6	31.5	19.6	19.6	19.6	19.6	24.4
5.75	98	69.3	59.7	76.4	40.7	59.7	47.8	26.5	21.8	31.3	19.4	21.8	19.4	19.4	24.2
6	98.2	69.5	62.3	76.6	40.9	59.9	50.4	26.7	22	31.5	19.6	22	19.6	19.6	24.4
6.25	98	69.3	62.1	76.4	43.1	62.1	50.2	26.5	21.8	33.6	19.4	21.8	19.4	19.4	24.2
6.5	100.6	69.5	62.3	76.6	43.3	62.3	52.8	29.1	22	33.8	19.6	22	19.6	22	24.4
6.75	100.6	71.9	62.3	76.6	45.7	62.3	52.8	29.1	22	36.2	19.6	22	19.6	19.6	24.4
7	100.6	71.9	64.7	79	45.7	62.3	52.8	29.1	24.4	36.2	19.6	22	19.6	22	24.4
7.25	100.4	71.7	64.5	78.8	47.8	64.5	52.6	28.9	24.2	38.4	19.4	21.8	19.4	19.4	24.2
7.5	102.8	74	64.5	78.8	47.8	64.5	55	31.3	24.2	38.4	19.4	21.8	19.4	21.8	24.2
7.75	103	71.9	67.1	79	48	67.1	55.2	31.5	26.7	40.9	19.6	24.4	19.6	22	26.7
8	102.8	74	66.9	81.2	50.2	66.9	57.4	33.6	26.5	40.7	19.4	24.2	19.4	21.8	26.5
8.25	103	74.2	67.1	81.4	50.4	67.1	57.6	33.8	26.7	43.3	19.6	24.4	19.6	22	26.7
8.5	105.2	74	66.9	81.2	50.2	69.3	59.7	33.6	26.5	43.1	19.4	24.2	19.4	21.8	26.5
8.75	107.6	76.4	66.9	81.2	52.6	69.3	59.7	36	28.9	43.1	19.4	24.2	19.4	24.2	26.5
9	110	76.4	69.3	81.2	52.6	69.3	62.1	36	28.9	45.5	19.4	24.2	19.4	24.2	26.5
9.25	109.8	76.2	69.1	81	52.4	69.1	61.9	35.8	28.7	45.3	21.6	24	19.2	24	26.3
9.5	112.4	76.4	69.3	83.6	55	69.3	62.1	38.4	28.9	45.5	21.8	24.2	19.4	24.2	26.5
9.75	114.8	76.4	69.3	83.6	55	71.7	62.1	36	31.3	47.8	21.8	24.2	19.4	24.2	26.5
10	119.8	79	71.9	83.8	55.2	71.9	64.7	38.6	31.5	48	22	26.7	19.6	24.4	26.7
10.25	124.4	78.8	71.7	86	55	71.7	64.5	38.4	31.3	50.2	21.8	26.5	19.4	24.2	26.5
10.5	129.3	81.2	71.7	86	57.4	74	66.9	40.7	33.6	50.2	24.2	26.5	19.4	26.5	28.9
10.75	138.9	81.2	74	86	57.4	74	66.9	40.7	33.6	52.6	24.2	26.5	19.4	26.5	28.9
11	148.5	83.6	74	88.4	59.7	76.4	66.9	40.7	33.6	52.6	24.2	26.5	19.4	26.5	28.9
11.25	156	86.2	74.2	91	59.9	76.6	69.5	40.9	36.2	52.8	24.4	26.7	19.6	26.7	29.1
11.5	160.8	88.6	76.6	91	62.3	79	69.5	40.9	36.2	52.8	24.4	29.1	22	26.7	29.1
11.75	168	91	79	93.4	62.3	79	71.9	43.3	38.6	55.2	24.4	29.1	22	29.1	29.1
12	175.1	93.2	78.8	95.6	64.5	81.2	71.7	45.5	38.4	55	26.5	28.9	21.8	28.9	28.9
12.25	180.1	95.8	81.4	95.8	64.7	83.8	71.9	45.7	38.6	55.2	26.7	31.5	22	29.1	31.5
12.5	184.7	95.6	83.6	98	66.9	86	74	47.8	40.7	57.4	26.5	31.3	21.8	28.9	31.3
12.75	192.2	98.2	86.2	100.6	69.5	88.6	76.6	48	40.9	59.9	26.7	33.8	22	29.1	31.5
13	199.4	98.2	88.6	100.6	71.9	88.6	76.6	50.4	40.9	59.9	26.7	31.5	22	29.1	31.5

13.25	204.1	98	90.8	102.8	71.7	90.8	78.8	52.6	43.1	59.7	26.5	33.6	21.8	31.3	33.6
13.5	211.3	98	93.2	105.2	76.4	93.2	81.2	52.6	43.1	62.1	28.9	33.6	21.8	31.3	33.6
13.75	218.7	98.2	95.8	107.8	79	93.4	81.4	55.2	43.3	62.3	29.1	36.2	22	31.5	33.8
14	225.9	100.6	95.8	110.2	81.4	95.8	86.2	57.6	45.7	64.7	29.1	36.2	24.4	31.5	33.8
14.25	235.6	103	95.8	115	83.8	98.2	88.6	62.3	45.7	64.7	29.1	38.6	24.4	31.5	36.2
14.5	242.8	105.4	98.2	119.8	86.2	98.2	88.6	64.7	48	67.1	31.5	38.6	24.4	33.8	36.2
14.75	250	107.8	98.2	124.6	88.6	98.2	91	67.1	48	67.1	31.5	40.9	24.4	33.8	36.2
15	259.6	112.6	98.2	129.5	91	100.6	91	71.9	48	69.5	31.5	43.3	24.4	33.8	38.6
15.25	269.2	119.8	98.2	136.7	93.4	100.6	93.4	74.2	50.4	71.9	33.8	43.3	24.4	33.8	38.6
15.5	276.1	124.4	98	141.3	95.6	100.4	95.6	78.8	50.2	71.7	33.6	45.5	24.2	33.6	38.4
15.75	283.5	129.5	98.2	143.9	95.8	100.6	95.8	81.4	52.8	74.2	33.8	45.7	26.7	36.2	38.6
16	293	136.7	98.2	148.7	98.2	100.6	95.8	83.8	52.8	74.2	33.8	48	24.4	36.2	40.9
16.25	302.6	143.9	100.6	153.6	98.2	103	98.2	88.6	55.2	76.6	33.8	48	26.7	36.2	40.9
16.5	311.9	151	100.4	158.2	98	105.2	98	90.8	55	78.8	36	50.2	26.5	36	43.1
16.75	323.9	156	103	163.2	98.2	107.8	98.2	93.4	57.6	81.4	36.2	52.8	26.7	36.2	43.3
17	333.2	163	107.6	170.3	100.4	110	98	95.6	59.7	81.2	38.4	52.6	26.5	38.4	43.1
17.25	342.8	168	110.2	175.3	98.2	112.6	98.2	95.8	62.3	83.8	38.6	55.2	26.7	38.6	43.3
17.5	349.9	175.3	112.6	180.1	100.6	117.4	98.2	95.8	64.7	86.2	38.6	55.2	29.1	38.6	43.3
17.75	359.5	180.3	115.2	187.6	98.4	120	98.4	96	64.9	86.4	41.1	57.8	29.3	38.8	45.9
18	366.3	187.4	119.8	192.2	98.2	124.6	98.2	98.2	69.5	88.6	40.9	59.9	29.1	38.6	45.7
18.25	373.4	192.2	122.2	197	100.6	129.5	98.2	98.2	69.5	91	40.9	62.3	29.1	40.9	48
18.5	380.4	197	127	204.3	100.6	134.3	100.6	98.2	71.9	93.4	43.3	62.3	31.5	40.9	48
18.75	387.4	204.3	131.9	209.1	100.6	139.1	100.6	98.2	74.2	93.4	43.3	64.7	31.5	40.9	48
19	394.4	209.1	139.1	216.3	100.6	143.9	100.6	98.2	76.6	95.8	45.7	64.7	31.5	40.9	50.4
19.25	401.2	216.1	141.3	220.9	100.4	148.5	100.4	98	81.2	98	45.5	66.9	31.3	43.1	50.2
19.5	408.5	223.7	148.9	226.1	100.8	153.8	100.8	98.4	84	98.4	48.2	69.7	34	43.5	53
19.75	415.3	230.8	153.6	230.8	100.6	158.4	103	98.2	83.8	98.2	50.4	71.9	33.8	43.3	50.4
20	419.9	235.6	158.4	235.6	103	160.8	105.4	98.2	86.2	98.2	50.4	71.9	33.8	43.3	52.8
20.25	426.9	242.8	160.8	240.4	105.4	165.6	105.4	98.2	88.6	100.6	52.8	74.2	33.8	45.7	52.8
20.5	433.8	247.6	165.6	245.2	107.8	170.5	110.2	98.2	91	100.6	52.8	74.2	36.2	45.7	52.8
20.75	440.8	254.8	170.5	250	110.2	175.3	110.2	98.2	93.4	100.6	55.2	76.6	36.2	45.7	55.2
21	445.4	262	175.3	254.8	112.6	180.1	115	98.2	95.8	100.6	55.2	79	36.2	48	55.2
21.25	452.3	269.2	180.1	262	115	182.5	117.4	100.6	95.8	100.6	57.6	79	38.6	48	55.2
21.5	459.4	274.1	185.2	264.6	120	187.6	117.6	98.4	98.4	100.8	60.1	81.6	38.8	50.6	55.4
21.75	463.8	281.1	189.8	271.6	122.2	192.2	122.2	100.6	98.2	100.6	62.3	83.8	38.6	50.4	57.6
22	470.9	286.1	194.8	276.5	124.8	197.2	124.8	100.8	100.8	100.8	64.9	84	38.8	50.6	57.8
22.25	477.6	293	199.4	281.1	129.5	201.8	127	100.6	100.6	100.6	64.7	86.2	40.9	50.4	57.6
22.5	482.4	298	204.5	286.1	134.5	206.9	129.7	100.8	100.8	100.8	67.3	86.4	41.1	53	60.1
22.75	489.3	305.1	209.3	293.2	136.9	209.3	132.1	100.8	100.8	100.8	69.7	88.8	43.5	53	60.1
23	493.9	309.9	214.1	298	141.7	214.1	136.9	103.2	100.8	100.8	72.1	88.8	43.5	53	62.5
23.25	498.4	317	221.3	305.1	146.5	218.9	139.3	103.2	100.8	100.8	74.4	91.2	43.5	53	62.5
23.5	505.3	321.7	226.1	312.3	148.9	223.7	144.1	103.2	100.8	100.8	76.8	91.2	45.9	55.4	62.5
23.75	509.9	328.8	231	319.4	151.4	231	146.5	103.2	100.8	100.8	79.2	93.6	45.9	55.4	62.5
24	514.5	333.6	235.8	326.5	156.2	235.8	148.9	103.2	100.8	100.8	81.6	93.6	45.9	57.8	64.9
24.25	519.1	338.3	243	338.3	158.6	240.6	153.8	108	100.8	100.8	81.6	96	48.2	57.8	64.9
24.5	523.6	345.4	247.8	364.2	163.4	245.4	156.2	108	100.8	100.8	84	96	48.2	60.1	64.9
24.75	528	349.9	252.4	373.4	168	250	160.8	110.2	100.6	103	86.2	95.8	50.4	59.9	64.7
25	530.5	354.8	257.4	380.6	170.7	255	163.4	110.4	100.8	103.2	88.8	96	50.6	62.5	64.9
25.25	535.1	359.5	262.2	385.2	175.5	259.8	168.2	110.4	100.8	100.8	91.2	98.4	50.6	62.5	67.3
25.5	539.6	366.5	267	392.2	177.9	264.6	173.1	112.8	100.8	100.8	91.2	98.4	53	64.9	67.3
25.75	541.9	371.2	274.1	396.9	182.7	269.4	177.9	112.8	100.8	103.2	93.6	98.4	53	64.9	67.3
26	546.3	375.7	278.7	399	184.9	273.9	180.1	115	100.6	100.6	93.4	98.2	52.8	67.1	67.1
26.25	551.1	380.6	283.7	389.9	190	278.9	185.2	117.6	100.8	100.8	96	100.8	55.4	67.3	69.7
26.5	553.3	385.2	288.5	392.2	194.8	283.7	190	120	100.8	103.2	96	100.8	55.4	69.7	69.7
26.75	557.7	387.4	293	396.7	197	288.3	192.2	119.8	100.6	103	98.2	100.6	57.6	69.5	69.5
27	560.2	392.2	298	396.9	202	293.2	197.2	122.4	100.8	103.2	98.4	100.8	57.8	72.1	72.1
27.25	564.8	396.9	302.8	401.6	204.5	300.4	204.5	122.4	100.8	103.2	98.4	100.8	60.1	72.1	72.1
27.5	564.8	399.2	309.9	406.2	206.9	305.1	206.9	127.2	100.8	103.2	98.4	100.8	60.1	74.4	72.1

27.75	569.3	403.9	314.6	410.9	214.1	309.9	211.7	129.7	100.8	105.6	100.8	100.8	62.5	74.4	74.4
28	571.6	406.2	321.7	415.5	216.5	314.6	216.5	129.7	100.8	105.6	100.8	100.8	62.5	76.8	72.1
28.25	573.7	410.7	326.3	419.9	221.1	319.2	221.1	134.3	100.6	107.8	100.6	100.6	62.3	76.6	74.2
28.5	576	415.3	331	433.8	223.5	323.9	225.9	136.7	100.6	107.8	100.6	103	64.7	79	74.2
28.75	578.3	417.6	335.7	440.8	228.4	328.6	230.8	139.1	100.6	110.2	100.6	103	67.1	81.4	74.2
29	580.4	422.1	340.3	456.7	233	335.5	235.4	138.9	100.4	112.4	100.4	102.8	69.3	81.2	76.4
29.25	580.6	424.6	347.5	461.5	235.6	340.5	240.4	143.9	100.6	112.6	100.6	103	69.5	81.4	76.6
29.5	582.9	429.2	352.2	468.4	240.4	345.2	245.2	146.3	100.6	115	100.6	103	71.9	83.8	76.6
29.75	585.2	433.8	356.9	470.7	242.8	349.9	250	146.3	100.6	117.4	100.6	105.4	71.9	86.2	76.6
30	587.4	436.1	359.3	477.6	247.6	352.2	254.8	148.7	100.6	119.8	100.6	105.4	74.2	86.2	79
30.25	589.7	443.1	364	479.9	252.4	356.9	257.2	151.2	100.6	119.8	100.6	105.4	74.2	88.6	79
30.5	592	445.4	368.7	484.5	254.8	361.6	264.4	153.6	100.6	122.2	100.6	107.8	76.6	88.6	79
30.75	592.2	450.2	373.6	489.3	259.8	366.5	269.4	156.2	100.8	127.2	100.8	108	76.8	91.2	81.6

Test 4

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	16.8	21.6	21.6	21.6	28.7	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
0.5	33.6	21.8	21.8	24.1	33.6	19.4	19.4	17	17	17	17	17	17	17	17
0.75	45.4	24.1	21.8	24.1	33.6	19.4	19.4	17	17	17	17	17	17	17	17
1	57.5	24.3	24.3	29.1	36.2	19.6	19.6	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
1.25	69.5	26.7	29.1	31.4	36.2	22	22	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
1.5	76.6	29.1	31.4	38.5	36.2	22	22	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
1.75	81.6	34	36.4	45.8	36.4	24.5	24.5	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
2	84.2	38.9	41.3	50.8	36.6	24.7	27.1	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
2.25	86.6	43.7	46	57.9	36.6	27.1	29.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
2.5	86.6	46	50.8	60.3	36.6	29.5	34.2	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
2.75	88.8	50.6	53	64.9	36.4	31.6	36.4	17.4	17.4	17.4	17.4	19.8	17.4	17.4	17.4
3	89	53.2	57.9	67.5	38.9	36.6	38.9	20	17.6	17.6	17.6	20	17.6	17.6	17.6
3.25	89	57.9	60.3	69.9	36.6	36.6	41.3	20	17.6	17.6	17.6	20	17.6	17.6	17.6
3.5	91.6	60.5	62.9	72.4	36.8	41.5	46.2	20.2	17.8	17.8	17.8	20.2	17.8	17.8	17.8
3.75	91.6	62.9	65.3	74.8	36.8	41.5	48.6	20.2	17.8	20.2	17.8	20.2	17.8	17.8	17.8
4	91.6	62.9	67.7	77.2	36.8	43.9	51	22.6	17.8	20.2	17.8	22.6	17.8	17.8	17.8
4.25	92	65.7	70.5	77.6	39.5	46.6	51.4	20.6	20.6	20.6	18.2	23	18.2	18.2	18.2
4.5	92	68.1	70.5	80	39.5	49	53.8	23	20.6	20.6	18.2	23	18.2	18.2	18.2
4.75	94.4	70.5	72.8	80	39.5	49	56.2	23	20.6	23	18.2	23	18.2	18.2	18.2
5	94.4	70.5	72.8	80	39.5	51.4	58.5	25.3	20.6	23	18.2	25.3	18.2	18.2	18.2
5.25	96.8	72.8	75.2	82.4	39.5	51.4	58.5	25.3	23	25.3	18.2	25.3	18.2	18.2	18.2
5.5	99.4	73	75.4	82.6	39.7	54	61.1	25.5	23.2	25.5	18.4	25.5	18.4	18.4	18.4
5.75	99.4	75.4	75.4	82.6	39.7	54	61.1	27.9	23.2	27.9	18.4	27.9	18.4	18.4	18.4
6	101.6	75.2	77.6	84.8	39.5	56.2	63.3	27.7	23	27.7	18.2	27.7	18.2	18.2	18.2
6.25	101.8	77.8	77.8	85	39.7	58.7	63.5	30.3	25.5	27.9	18.4	30.3	18.4	18.4	18.4
6.5	104.2	77.8	77.8	85	37.4	58.7	65.9	30.3	25.5	30.3	18.4	30.3	18.4	18.4	18.4
6.75	104.4	78	80.4	85.2	37.6	61.3	66.1	30.5	28.1	30.5	21	30.5	18.6	21	18.6
7	104.2	80.2	80.2	85	37.4	61.1	68.3	32.6	27.9	32.6	20.8	30.3	18.4	20.8	18.4
7.25	104.4	80.4	80.4	87.6	39.9	61.3	68.5	35.2	28.1	32.8	21	32.8	18.6	21	18.6
7.5	106.8	80.4	80.4	87.6	37.6	63.7	70.9	35.2	30.5	35.2	21	32.8	18.6	21	18.6
7.75	107	80.6	83	87.8	37.8	63.9	71.1	35.4	30.7	35.4	21.2	33	18.8	21.2	18.8
8	107	83	83	87.8	37.8	66.3	71.1	35.4	33	37.8	23.6	35.4	18.8	21.2	18.8
8.25	109.6	80.8	83.2	88	38	66.5	71.3	38	33.2	38	23.8	35.6	19	23.8	19
8.5	109.6	83.2	83.2	88	38	66.5	73.6	40.3	33.2	40.3	23.8	35.6	19	23.8	19
8.75	109.6	83.2	83.2	90.4	38	68.9	73.6	38	35.6	40.3	23.8	35.6	21.4	23.8	19
9	111.8	83	85.4	87.8	37.8	68.7	73.4	40.1	35.4	40.1	23.6	37.8	21.2	23.6	18.8
9.25	111.6	82.8	85.2	90	39.9	68.5	75.6	39.9	37.6	42.3	25.7	37.6	21	23.4	18.6
9.5	111.6	85.2	85.2	90	39.9	70.9	75.6	42.3	37.6	42.3	25.7	37.6	21	25.7	18.6
9.75	113.8	85	85	89.8	37.4	70.7	75.4	42.1	37.4	42.1	27.9	37.4	20.8	25.5	18.4
10	116.4	85.2	85.2	90	37.6	70.9	75.6	42.3	39.9	44.7	28.1	39.9	21	25.7	18.6
10.25	116.4	85.2	85.2	90	39.9	70.9	75.6	44.7	39.9	44.7	28.1	39.9	21	25.7	18.6
10.5	118.6	85	85	89.8	37.4	73	75.4	44.5	39.7	46.8	27.9	39.7	20.8	25.5	18.4
10.75	118.8	85.2	87.6	90	37.6	73.2	78	47	42.3	47	30.5	39.9	23.4	28.1	18.6
11	121.2	85.2	87.6	90	39.9	73.2	78	47	42.3	47	30.5	42.3	23.4	28.1	18.6
11.25	123.8	87.8	87.8	90.2	37.8	73.4	78.2	47.2	42.5	49.6	30.7	42.5	23.6	28.3	18.8
11.5	126.2	87.8	87.8	92.6	40.1	75.8	78.2	47.2	44.9	49.6	30.7	42.5	23.6	28.3	21.2
11.75	128.7	87.8	87.8	92.6	40.1	75.8	80.6	49.6	44.9	49.6	33	42.5	23.6	28.3	18.8
12	130.9	87.6	87.6	92.4	37.6	75.6	80.4	49.4	44.7	49.4	32.8	42.3	23.4	28.1	21
12.25	135.7	90	90	92.4	39.9	75.6	80.4	49.4	47	51.8	32.8	44.7	23.4	30.5	21
12.5	142.9	90	90	92.4	37.6	75.6	80.4	49.4	47	51.8	35.2	44.7	23.4	30.5	21
12.75	147.7	90	90	94.8	37.6	78	82.8	51.8	47	51.8	35.2	44.7	25.7	30.5	21
13	155	90	90	94.8	37.6	78	82.8	51.8	47	54.2	35.2	44.7	25.7	30.5	21

13.25	164.6	92.4	90	94.8	39.9	78	82.8	51.8	49.4	54.2	35.2	47	25.7	32.8	21
13.5	174.3	92.4	92.4	97.2	37.6	80.4	85.2	51.8	49.4	54.2	37.6	47	28.1	32.8	21
13.75	181.3	94.6	92.2	99.4	37.4	80.2	85	54	51.6	54	37.4	46.8	27.9	32.6	20.8
14	186.4	94.8	94.8	99.6	37.6	80.4	87.6	54.2	51.8	56.6	37.6	49.4	28.1	32.8	21
14.25	193.4	97	94.6	101.8	35	80.2	89.8	54	51.6	56.4	39.7	49.2	27.9	35	20.8
14.5	198.2	99.4	97	101.8	35	82.6	89.8	54	51.6	58.7	39.7	49.2	27.9	35	20.8
14.75	205.3	99.2	96.8	104	37.2	82.4	92	53.8	53.8	56.2	39.5	51.4	27.7	34.8	23
15	210.1	101.6	99.2	106.4	37.2	84.8	94.4	56.2	53.8	58.5	41.9	51.4	30.1	34.8	20.6
15.25	214.9	101.6	99.2	108.8	37.2	87.2	94.4	56.2	53.8	60.9	39.5	51.4	30.1	34.8	23
15.5	219.7	104	101.6	111.2	37.2	87.2	96.8	56.2	53.8	60.9	41.9	53.8	30.1	37.2	23
15.75	227.2	106.6	104.2	113.8	39.7	89.8	99.4	58.7	56.4	61.1	42.1	54	32.6	37.4	23.2
16	232	106.6	104.2	116.2	37.4	89.8	99.4	58.7	56.4	61.1	42.1	54	30.3	37.4	23.2
16.25	236.8	106.6	106.6	121	37.4	92.2	101.8	61.1	58.7	63.5	42.1	56.4	32.6	37.4	23.2
16.5	241.4	108.8	108.8	123.2	34.8	94.4	101.6	60.9	58.5	63.3	44.3	58.5	32.4	37.2	23
16.75	246.2	108.8	108.8	125.6	34.8	94.4	104	60.9	60.9	63.3	44.3	58.5	32.4	37.2	23
17	253.6	109	111.4	128.2	37.4	97	104.2	63.5	61.1	65.9	46.8	58.7	32.6	39.7	23.2
17.25	258.4	111.4	113.8	133.1	37.4	99.4	104.2	63.5	61.1	65.9	46.8	61.1	32.6	39.7	23.2
17.5	263.2	116.2	116.2	135.5	37.4	99.4	104.2	63.5	61.1	68.3	46.8	63.5	35	39.7	23.2
17.75	270.4	118.6	118.6	140.3	37.4	101.8	104.2	65.9	63.5	68.3	49.2	63.5	35	39.7	25.5
18	275.1	121	118.6	142.7	37.4	101.8	104.2	65.9	63.5	68.3	49.2	65.9	35	42.1	25.5
18.25	282.3	123.4	121	147.5	37.4	101.8	104.2	68.3	65.9	70.7	49.2	68.3	37.4	42.1	25.5
18.5	291.8	128.2	125.8	150	37.4	104.2	106.6	68.3	65.9	70.7	51.6	68.3	37.4	42.1	25.5
18.75	298.8	132.9	128	154.6	39.5	104	106.4	68.1	68.1	72.8	51.4	70.5	37.2	41.9	25.3
19	308.1	137.5	130.3	159.2	48.8	103.8	106.2	70.3	67.9	75	51.2	70.3	39.3	44.1	25.1
19.25	315.2	142.3	135.1	164	46.4	103.8	108.6	72.6	70.3	75	53.6	72.6	39.3	44.1	25.1
19.5	326.8	149.4	137.3	168.7	74.8	106	108.4	74.8	72.4	74.8	53.4	72.4	39.1	43.9	27.3
19.75	334.1	154.4	142.3	171.3	46.4	103.8	111	75	72.6	77.4	53.6	75	39.3	44.1	27.5
20	341	161.4	146.9	175.9	62.9	106	113.2	77.2	74.8	79.6	55.8	77.2	41.5	43.9	27.3
20.25	348.5	169.1	152.2	181.1	72.8	106.4	116	77.6	77.6	80	56.2	77.6	41.9	46.6	27.7
20.5	357.9	173.9	157	186	75.2	106.4	118.4	80	77.6	82.4	58.5	77.6	41.9	46.6	27.7
20.75	365.1	181.3	162	191	77.8	106.6	121	82.6	80.2	85	58.7	80.2	42.1	46.8	27.9
21	369.8	186.2	166.8	195.8	82.6	106.6	123.4	82.6	82.6	87.4	61.1	80.2	44.5	49.2	27.9
21.25	376.8	193.4	171.7	203.1	85	109	128.2	85	82.6	87.4	61.1	82.6	44.5	49.2	30.3
21.5	381.5	198.2	176.5	207.9	87.4	109	130.7	87.4	85	89.8	61.1	82.6	46.8	49.2	27.9
21.75	386	205.3	181.1	212.5	92	108.8	135.3	89.6	87.2	92	63.3	84.8	46.6	49	30.1
22	393.4	210.5	186.4	217.7	102	111.6	138.1	90	90	92.4	66.1	87.6	47	51.8	30.5
22.25	400.4	215.3	193.6	222.5	104.4	114	142.9	92.4	92.4	94.8	66.1	87.6	49.4	51.8	30.5
22.5	405.2	220.3	198.6	227.6	114.2	116.6	145.5	92.6	92.6	97.4	68.7	87.8	49.6	52	30.7
22.75	412.2	225.1	203.5	232.4	114.2	119	150.4	95	95	97.4	68.7	90.2	49.6	52	30.7
23	417	232.6	208.5	237.4	114.4	119.2	155.4	97.6	97.6	100	71.3	90.4	49.8	52.2	33.2
23.25	424	237.4	213.3	242.2	116.8	124	157.8	100	100	100	71.3	90.4	52.2	54.6	33.2
23.5	428.6	239.8	218.1	247	121.6	124	162.6	100	100	100	73.6	92.8	52.2	54.6	33.2
23.75	433.2	244.6	222.9	251.8	128.9	128.9	165	102.4	102.4	102.4	76	95.2	52.2	54.6	33.2
24	435.5	249.4	227.8	254.2	126.4	131.3	169.9	102.4	102.4	102.4	76	95.2	52.2	54.6	33.2
24.25	442.5	254.2	232.6	259	128.9	133.7	172.3	102.4	104.8	102.4	78.4	95.2	54.6	57	33.2
24.5	445	259.2	237.6	264	129.1	136.3	177.3	105	105	105	81	97.8	54.8	57.2	35.8
24.75	447.3	261.6	242.4	268.8	133.9	141.1	179.7	105	105	105	81	97.8	57.2	57.2	35.8
25	451.9	266.4	247.2	271.2	141.1	143.5	182.1	105	105	105	83.4	100.2	57.2	59.5	35.8
25.25	454.2	271.2	252	273.5	148.3	148.3	187	105	107.4	105	83.4	100.2	59.5	59.5	35.8
25.5	456.5	273.5	254.4	278.3	150.8	150.8	189.4	105	107.4	105	85.8	100.2	59.5	59.5	35.8
25.75	460.9	278.1	259	282.9	155.4	155.4	191.6	104.8	107.2	104.8	85.6	102.4	59.3	61.7	38
26	462.8	282.5	263.4	284.9	157.4	157.4	196	104.4	106.8	104.4	87.6	102	61.3	61.3	37.6
26.25	465.3	285.1	268.4	287.5	162.4	160	198.6	104.6	107	104.6	87.8	104.6	61.5	61.5	37.8
26.5	467.8	290.1	271	292.4	167.4	165	203.7	104.8	107.2	104.8	90.4	104.8	61.7	61.7	38
26.75	470.3	292.6	275.9	295	167.6	167.6	206.3	105	105	105	90.6	107.4	64.3	61.9	38.2
27	484.3	297.6	278.5	297.6	170.3	172.7	208.9	105.2	105.2	105.2	93.2	107.6	64.5	64.5	40.7
27.25	488.9	302.4	283.3	302.4	170.3	175.1	213.7	105.2	107.6	105.2	93.2	110	64.5	64.5	40.7
27.5	493.3	304.5	285.5	304.5	172.5	179.7	215.9	105	107.4	105	95.4	109.8	66.7	64.3	40.5

27.75	495.8	309.5	290.5	307.1	175.1	182.3	218.5	105.2	107.6	105.2	95.6	110	66.9	66.9	40.7
28	500.5	312.1	295.4	312.1	177.7	187.4	223.5	105.4	107.8	105.4	98.2	112.6	69.5	67.1	40.9
28.25	502.6	316.6	297.6	314.2	179.9	192	225.7	105.2	107.6	105.2	98	112.4	69.3	66.9	43.1
28.5	504.9	321.3	302.4	319	182.3	194.4	228.2	105.2	107.6	105.2	100.4	114.8	71.7	69.3	43.1
28.75	507.4	323.9	307.3	321.5	184.9	199.4	230.8	105.4	107.8	105.4	100.6	115	71.9	69.5	43.3
29	511.8	328.4	309.5	326.1	182.3	201.6	235.4	105.2	107.6	105.2	100.4	117.2	71.7	69.3	43.1
29.25	513.9	330.6	314	328.2	182.1	206.3	237.6	105	107.4	105	102.6	117	73.8	71.5	42.9
29.5	516.2	333	318.8	333	174.9	208.7	242.4	105	105	105	102.6	119.4	73.8	71.5	42.9
29.75	518.7	337.9	323.7	337.9	177.5	213.7	245	105.2	107.6	105.2	102.8	119.6	76.4	71.7	45.5
30	523	342.4	325.9	342.4	225.5	215.9	249.6	105	107.4	107.4	105	121.8	76.2	73.8	45.3
30.25	525.3	344.8	330.6	347.1	225.5	220.7	252	102.6	107.4	105	102.6	121.8	76.2	73.8	45.3
30.5	527.6	349.5	335.3	351.8	225.5	223.1	254.4	102.6	107.4	105	105	124.2	78.6	73.8	45.3
30.75	529.9	351.8	340.1	356.5	230.4	228	259.2	105	107.4	105	105	124.2	78.6	76.2	45.3
31	532.2	356.5	344.8	361.2	232.8	230.4	261.6	105	107.4	105	105	126.6	81	76.2	47.6
31.25	534.7	359.1	349.7	368.5	233	235.4	266.6	105.2	107.6	105.2	105.2	129.3	81.2	76.4	47.8
31.5	534.9	361.6	356.9	373.4	235.6	238	271.6	105.4	107.8	105.4	105.4	129.5	81.4	79	48
31.75	539.4	366.3	361.6	378	233.2	242.8	273.9	105.4	107.8	105.4	105.4	129.5	83.8	79	48
32	541.9	371.2	368.9	385.2	226.1	247.8	278.9	105.6	108	105.6	105.6	132.1	84	79.2	48.2
32.25	542.1	373.8	373.8	390.1	221.5	250.4	283.9	108.2	108.2	105.8	105.8	132.3	84.2	81.8	48.4
32.5	544.4	378.4	378.4	397.1	209.5	255.2	286.3	108.2	108.2	108.2	105.8	134.7	86.6	81.8	48.4
32.75	546.7	380.8	383.1	401.8	228.8	260	293.4	110.6	108.2	105.8	105.8	137.1	86.6	81.8	50.8
33	549	385.4	387.8	406.4	226.3	264.8	295.8	110.6	108.2	108.2	105.8	137.1	86.6	84.2	50.8
33.25	551.5	388	392.6	411.3	219.3	269.8	300.8	113.2	108.4	108.4	106	139.7	89.2	84.4	51
33.5	553.7	390.3	397.3	415.9	219.3	274.5	305.5	113.2	108.4	108.4	106	139.7	89.2	84.4	51
33.75	556	392.6	399.6	420.5	32.1	276.9	310.3	115.6	108.4	108.4	106	142.1	89.2	86.8	53.4
34	558.3	397.3	404.3	425.2	32.1	281.7	315	118	108.4	108.4	106	142.1	91.6	86.8	53.4
34.25	560.2	399.2	408.5	429.4	31.7	286.1	317	120	108	108	105.6	144.1	91.2	88.8	53
34.5	562.7	401.8	413.4	434.2	34.2	291.1	321.9	120.2	108.2	108.2	105.8	144.3	93.8	89	53.2
34.75	562.7	404.1	415.7	438.9	34.2	295.8	324.3	122.6	110.6	108.2	105.8	146.7	93.8	89	53.2
35	565.2	408.9	420.5	443.7	34.4	300.8	329.2	125.2	110.8	110.8	106	146.9	94	89.2	53.4
35.25	567.5	411.3	425.2	450.6	32.1	305.5	334	127.6	110.8	110.8	106	149.3	94	91.6	53.4
35.5	567.7	413.8	430	455.4	32.3	308.1	336.5	130.3	113.4	111	106.2	149.5	96.6	91.8	56
35.75	569.9	416.1	432.3	460	34.6	312.9	341.3	132.7	113.4	113.4	106.2	152	96.6	91.8	56
36	571.8	420.3	436.5	466.5	34.2	317.2	345.6	132.3	115.4	115.4	105.8	151.6	96.2	91.4	55.6
36.25	573.9	422.5	438.7	473.2	34	321.7	350.1	136.9	117.6	115.2	105.6	153.8	98.4	93.6	55.4
36.5	573.7	424.6	443.1	475.3	33.8	326.3	354.6	136.7	119.8	117.4	105.4	153.6	98.2	93.4	55.2
36.75	576.2	427.1	445.6	480.1	31.7	331.2	359.5	139.3	120	117.6	105.6	156.2	98.4	93.6	55.4
37	573.9	429.4	447.9	484.7	31.7	335.9	364.2	141.7	122.4	120	105.6	156.2	100.8	96	55.4
37.25	576.4	431.9	450.4	489.5	34.2	340.9	371.4	146.7	125	122.6	105.8	158.8	101	96.2	58
37.5	576.4	436.5	452.7	491.8	31.9	345.6	376.1	151.6	125	125	105.8	158.8	101	96.2	58
37.75	578.7	436.5	455	496.4	156.4	350.3	380.8	151.6	127.4	127.4	105.8	161.2	101	96.2	58
38	578.9	441.4	457.5	498.8	241	355.2	388	156.6	132.5	130.1	106	161.4	101.2	98.8	58.2
38.25	581.2	443.7	457.5	503.4	110.8	359.9	392.6	159	132.5	130.1	106	163.8	103.6	98.8	58.2
38.5	581	443.5	461.9	505.5	31.9	364.4	397.1	158.8	134.7	132.3	105.8	163.6	103.4	98.6	60.3
38.75	583.7	446.2	462.3	508.2	267.6	369.5	402.2	164	137.5	137.5	106.2	166.4	103.8	99	60.7
39	583.3	448.1	461.9	510.1	279.1	371.4	406.4	166	139.5	139.5	105.8	166	103.4	98.6	60.3
39.25	585.6	450.4	461.9	512.4	283.9	376.1	411.1	170.9	144.3	141.9	105.8	168.5	103.4	101	60.3
39.5	588	452.9	462.1	514.9	293.6	378.6	415.9	171.1	146.9	144.5	106	168.7	103.6	101.2	60.5
39.75	588.2	455.4	464.6	517.4	296.2	381.2	423.1	176.1	149.5	147.1	106.2	168.9	103.8	101.4	60.7
40	590.5	457.7	466.9	517.4	296.2	385.8	425.4	178.5	152	149.5	106.2	171.3	106.2	101.4	63.1
40.25	590.5	457.7	469.2	519.7	293.8	388.2	430	180.9	154.4	152	106.2	171.3	103.8	101.4	63.1
40.5	590.7	460.2	469.4	522.1	329.6	390.7	434.8	183.5	157	154.6	106.4	173.9	104	101.6	63.3
40.75	592.8	462.3	471.5	524.2	329.4	395.2	436.9	185.8	159.2	156.8	106.2	173.7	106.2	101.4	63.1
41	592.8	462.3	473.8	524.2	355.4	397.5	441.6	188.2	164	161.6	106.2	176.1	106.2	101.4	63.1
41.25	595.5	465	476.5	526.9	348.7	402.6	444.3	193.4	166.8	164.4	106.6	176.5	104.2	104.2	63.5
41.5	597.6	464.8	478.6	529	360.3	404.7	448.7	195.6	169.1	166.6	106.4	178.7	104	104	63.3
41.75	599.5	466.7	482.8	533.2	359.9	408.9	450.6	197.6	173.5	168.7	106	178.3	106	103.6	62.9
42	599.3	468.8	484.9	533	355	413.4	457.3	199.8	175.7	173.3	105.8	180.5	105.8	103.4	65.1

42.25	599.1	470.9	487	535.1	331.2	415.5	459.4	202	177.9	175.5	108	180.3	105.6	103.2	64.9
42.5	601.4	473.2	489.3	535.1	321.7	420.1	461.7	204.5	182.7	177.9	108	182.7	105.6	103.2	64.9
42.75	603.5	475.3	491.4	537.1	300.2	424.6	463.8	206.7	184.9	182.5	105.4	182.5	105.4	103	64.7
43	603.7	475.5	493.9	537.3	290.9	427.1	466.3	211.7	190	185.2	108	185.2	105.6	103.2	64.9
43.25	606	477.8	498.4	539.6	321.7	431.7	468.6	214.1	192.4	190	108	185.2	105.6	105.6	67.3
43.5	606.2	480.3	500.9	539.8	371.4	434.2	471.1	216.7	197.4	192.6	108.2	187.8	105.8	105.8	67.5
43.75	608.4	480.3	503.2	542.1	394.8	438.9	471.1	219.1	199.8	195	108.2	187.8	105.8	105.8	67.5
44	610.9	482.8	505.7	544.6	385.6	441.4	471.3	221.7	202.4	200	108.4	188	106	106	67.7
44.25	610.9	485.1	508	546.9	369.3	446	473.6	226.5	207.3	202.4	110.8	190.4	106	106	67.7
44.5	613	487.2	510.1	546.7	371.4	448.1	475.7	228.8	209.5	207.1	110.6	190.2	105.8	105.8	67.5
44.75	613.2	489.7	512.6	549.2	371.6	452.9	478.2	231.4	214.5	209.7	110.8	192.8	106	106	67.7
45	615.3	489.5	517	551.3	338.5	455	480.3	233.6	216.7	214.3	113	192.6	105.8	105.8	69.9
45.25	615.3	494.1	517	551.3	347.9	457.3	480.3	236	221.5	216.7	113	195	105.8	105.8	69.9
45.5	617.4	493.9	519.1	553.3	387.6	459.4	482.4	238.2	223.7	221.3	115.2	194.8	105.6	105.6	69.7
45.75	617.6	496.4	521.5	555.8	326.7	461.9	484.9	240.8	228.8	223.9	115.4	197.4	105.8	105.8	69.9
46	606.2	498.6	521.5	549	260	464.2	484.9	245.6	231.2	228.8	117.8	197.4	105.8	105.8	69.9
46.25	608.4	500.9	519.3	537.5	262.4	466.5	478	248	236	231.2	120.2	199.8	105.8	105.8	69.9
46.5	608.4	505.5	517	530.7	262.4	464.2	471.1	250.4	238.4	236	120.2	199.8	105.8	105.8	72.3
46.75	610.7	507.8	517	526.1	262.4	464.2	466.5	252.8	243.2	238.4	122.6	202.2	105.8	105.8	72.3
47	610.7	510.1	514.7	523.8	262.4	464.2	461.9	257.6	245.6	243.2	125	202.2	105.8	105.8	72.3
47.25	611.1	512.8	515.1	521.9	255.6	464.6	462.3	260.4	250.8	246	125.4	205.1	106.2	106.2	72.7
47.5	611.1	515.1	515.1	521.9	250.8	464.6	460	262.8	253.2	250.8	127.8	205.1	106.2	106.2	72.7
47.75	611.1	517.4	515.1	521.9	248.4	464.6	462.3	265.2	255.6	253.2	130.3	205.1	106.2	106.2	72.7
48	611.1	517.4	517.4	521.9	246	466.9	462.3	267.6	260.4	255.6	132.7	207.5	106.2	106.2	75
48.25	611.3	519.9	517.6	522.1	248.6	467.1	464.8	270.2	263	258.2	135.3	210.1	106.4	106.4	75.2
48.5	611.3	522.1	517.6	524.4	248.6	469.4	464.8	272.6	267.8	260.6	137.7	210.1	106.4	106.4	75.2
48.75	613.6	522.1	519.9	524.4	246.2	471.7	467.1	277.3	270.2	263	140.1	210.1	106.4	106.4	75.2
49	613.8	524.6	520.1	526.9	244	471.9	469.6	279.9	272.8	265.6	140.3	212.7	106.6	106.6	75.4
49.25	613.8	526.9	522.3	526.9	251.2	474.2	471.9	282.3	275.1	268	142.7	212.7	106.6	106.6	75.4
49.5	613.8	526.9	522.3	529.2	344	476.5	471.9	284.7	277.5	270.4	147.5	215.1	109	106.6	75.4
49.75	616.3	529.4	524.8	531.7	289.7	476.7	474.4	287.3	280.1	273	150.1	215.3	109.2	106.8	78
50	616.3	529.4	527.1	531.7	270.6	479	476.7	292.1	284.9	275.3	152.6	217.7	109.2	106.8	78
50.25	616.3	531.7	527.1	531.7	273	481.3	476.7	292.1	287.3	277.7	155	217.7	109.2	106.8	78
50.5	616.5	531.9	529.6	534.2	270.8	483.8	479.2	297	289.9	280.3	157.6	220.3	109.4	107	78.2
50.75	618.6	531.7	529.4	534	268.2	483.6	481.3	296.8	292.1	282.5	159.8	220.1	109.2	106.8	78
51	618.8	534.2	531.9	536.5	268.4	486.1	483.8	301.8	294.6	285.1	162.4	222.7	109.4	107	78.2
51.25	619	534.4	532.1	536.7	268.6	488.6	486.3	304.4	299.6	287.7	165	222.9	112	107.2	80.8
51.5	619.2	536.9	534.6	539.1	266.4	491.1	486.5	306.9	302.2	290.3	167.6	225.5	109.8	109.8	78.6
51.75	621.3	536.7	534.4	538.9	263.8	490.9	488.6	309.1	304.4	292.5	169.9	225.3	112	107.2	80.8
52	619.2	539.1	536.9	541.4	268.8	493.4	491.1	311.7	306.9	295	172.5	227.9	112.2	107.4	81
52.25	621.3	538.9	536.7	541.2	263.8	495.5	493.2	316.2	311.5	299.6	174.7	230.2	112	107.2	80.8
52.5	621.3	541.2	538.9	543.5	261.4	495.5	495.5	318.6	313.9	302	177.1	230.2	112	107.2	80.8
52.75	621.3	541.2	538.9	543.5	261.4	497.8	495.5	321	316.2	304.4	179.5	232.6	114.4	109.6	80.8
53	626.1	543.7	541.4	546	259.2	500.3	495.7	323.5	321.2	306.9	182.1	232.8	114.6	109.8	81
53.25	626.1	543.7	541.4	546	259.2	500.3	498	325.9	323.5	309.3	184.5	235.2	114.6	107.4	83.4
53.5	626.1	546	543.7	548.3	256.8	502.5	500.3	328.3	325.9	311.7	189.4	235.2	114.6	109.8	83.4
53.75	625.9	545.8	543.5	550.4	259	502.3	502.3	332.8	328.1	316.2	191.6	237.4	116.8	109.6	80.8
54	632.6	547.9	545.6	552.5	263.6	504.4	504.4	335	332.6	318.4	193.8	244.4	114.2	109.4	83
54.25	632.8	550.4	545.8	550.4	261.4	506.9	504.6	337.5	335.2	321	196.4	254.2	116.8	109.6	83.2

Test 5

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	25	22.6	22.6	22.6	32.1	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	22.6
0.5	25	22.6	22.6	22.6	32.1	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
0.75	29.9	25.2	25.2	25.2	34.6	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	22.8
1	41.7	25.2	25.2	27.5	34.6	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	22.8
1.25	51.4	30.1	27.7	30.1	34.8	23	23	20.6	20.6	20.6	20.6	20.6	18.3	20.6	20.6
1.5	60.9	34.8	32.5	34.8	34.8	23	25.4	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
1.75	68.3	39.8	37.4	39.8	35	23.2	25.6	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2	72.9	44.3	44.3	44.3	34.8	25.4	27.7	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
2.25	77.6	46.7	49	51.4	37.2	27.7	32.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
2.5	80.2	51.6	54	54	37.4	30.3	35	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.75	82.6	54	56.4	56.4	37.4	32.7	37.4	23.2	20.8	20.8	20.8	20.8	20.8	20.8	20.8
3	85	56.4	61.1	61.1	37.4	35	39.8	23.2	20.8	23.2	20.8	20.8	20.8	20.8	20.8
3.25	84.8	60.9	63.3	63.3	37.2	34.8	44.3	25.4	20.6	23	20.6	20.6	20.6	20.6	20.6
3.5	87	63.1	65.5	65.5	34.6	37	44.1	25.2	20.4	25.2	20.4	20.4	20.4	20.4	20.4
3.75	90	63.7	68.5	68.5	37.6	40	49.4	28.1	21	25.8	21	21	21	21	21
4	89.8	65.9	70.7	70.7	37.4	42.1	51.6	27.9	20.8	27.9	20.8	20.8	20.8	20.8	20.8
4.25	90	68.5	73.3	70.9	37.6	44.7	51.8	30.5	23.4	28.1	21	21	21	21	21
4.5	90.2	71.1	73.5	73.5	37.8	44.9	54.4	30.7	23.6	30.7	21.2	21.2	21.2	21.2	21.2
4.75	90	70.9	75.6	75.6	37.6	47.1	56.6	32.9	23.4	30.5	21	21	18.7	21	21
5	92.6	73.5	78.2	75.9	37.8	49.6	56.8	35.4	26	33.1	21.2	21.2	21.2	21.2	21.2
5.25	92.6	73.5	78.2	78.2	35.4	52	59.2	35.4	26	33.1	21.2	21.2	18.9	21.2	21.2
5.5	92.6	75.9	78.2	78.2	37.8	52	61.5	35.4	26	35.4	21.2	21.2	21.2	21.2	21.2
5.75	92.6	75.9	80.6	80.6	37.8	54.4	63.9	37.8	26	37.8	21.2	21.2	21.2	21.2	21.2
6	92.6	78.2	80.6	80.6	37.8	54.4	63.9	40.2	28.3	37.8	21.2	23.6	21.2	21.2	21.2
6.25	92.4	78	82.8	80.4	37.6	56.6	63.7	40	28.1	37.6	21	23.4	21	21	21
6.5	92.6	78.2	83	83	37.8	56.8	66.3	42.5	28.3	40.2	21.2	23.6	21.2	21.2	21.2
6.75	95	78.2	83	83	37.8	59.2	66.3	42.5	30.7	40.2	21.2	23.6	21.2	21.2	21.2
7	95.2	80.8	83.2	83.2	38	59.4	68.9	45.1	30.9	42.7	21.4	23.8	21.4	21.4	21.4
7.25	95.2	80.8	83.2	83.2	38	61.7	68.9	45.1	30.9	45.1	23.8	23.8	21.4	21.4	21.4
7.5	95.2	80.8	83.2	83.2	38	61.7	71.3	45.1	33.3	45.1	23.8	26.2	21.4	21.4	21.4
7.75	95.4	81	85.8	83.4	38.2	64.3	71.5	45.3	33.5	45.3	24	26.4	21.6	21.6	21.6
8	97.6	83.2	83.2	85.6	38	64.1	71.3	47.5	35.6	45.1	23.8	26.2	21.4	21.4	21.4
8.25	95.2	83.2	85.6	85.6	38	64.1	71.3	47.5	35.6	47.5	26.2	26.2	21.4	21.4	21.4
8.5	95.4	83.4	85.8	85.8	38.2	66.7	73.9	50	35.8	50	26.4	26.4	21.6	21.6	21.6
8.75	97.6	83.2	85.6	85.6	38	66.5	73.7	49.8	35.6	49.8	26.2	26.2	21.4	21.4	21.4
9	97.6	83.2	85.6	85.6	38	66.5	73.7	52.2	38	49.8	26.2	26.2	21.4	21.4	21.4
9.25	97.8	83.4	85.8	85.8	38.2	66.7	73.9	52.4	38.2	52.4	26.4	28.7	21.6	21.6	21.6
9.5	97.8	85.8	88.2	88.2	38.2	69.1	76.3	52.4	40.6	52.4	28.7	28.7	21.6	21.6	21.6
9.75	97.8	85.8	88.2	88.2	38.2	69.1	76.3	54.8	40.6	52.4	28.7	28.7	21.6	21.6	21.6
10	97.8	85.8	88.2	88.2	38.2	69.1	76.3	54.8	40.6	54.8	28.7	28.7	21.6	21.6	21.6
10.25	97.6	85.6	88	88	38	68.9	76.1	54.6	42.7	54.6	30.9	28.5	21.4	21.4	21.4
10.5	100	85.6	88	88	38	71.3	78.4	54.6	42.7	54.6	30.9	30.9	21.4	21.4	21.4
10.75	99.6	87.6	87.6	90	37.6	70.9	78	56.6	42.3	54.2	30.5	30.5	21	21	21
11	102	87.6	87.6	90	37.6	70.9	78	56.6	44.7	56.6	30.5	30.5	21	21	21
11.25	102.2	87.8	87.8	90.2	37.8	73.5	78.2	56.8	44.9	56.8	33.1	30.7	21.2	21.2	21.2
11.5	102.2	87.8	87.8	90.2	37.8	73.5	78.2	59.2	44.9	56.8	33.1	30.7	21.2	21.2	21.2
11.75	105	88.2	88.2	90.6	38.2	73.9	81	61.9	45.3	59.6	33.5	31.1	21.6	24	21.6
12	104.4	90	90	90	37.6	75.6	80.4	61.3	47.1	59	35.2	32.9	21	21	21
12.25	107	90.2	90.2	90.2	37.8	75.9	80.6	61.5	47.3	59.2	35.4	33.1	21.2	23.6	21.2
12.5	109.6	90.4	90.4	92.8	38	76.1	83.2	61.7	47.5	61.7	35.6	33.3	21.4	23.8	21.4
12.75	109.4	90.2	90.2	92.6	40.2	75.9	83	63.9	49.6	61.5	37.8	33.1	23.6	23.6	21.2
13	109.6	92.8	90.4	92.8	40.4	76.1	83.2	64.1	49.8	61.7	38	33.3	21.4	23.8	21.4

13.25	112.2	90.6	90.6	93	38.2	76.3	83.4	64.3	50	61.9	38.2	33.5	24	24	21.6
13.5	114.4	92.8	92.8	92.8	40.4	78.4	83.2	64.1	52.2	64.1	38	35.6	23.8	23.8	21.4
13.75	117	93	93	95.4	38.2	78.6	83.4	64.3	52.4	64.3	40.6	35.8	24	24	21.6
14	117	93	93	95.4	40.6	78.6	85.8	64.3	52.4	64.3	40.6	35.8	24	24	21.6
14.25	119.4	93	93	95.4	40.6	78.6	85.8	66.7	54.8	66.7	40.6	35.8	24	26.4	21.6
14.5	122	95.6	93.2	95.6	40.8	81.2	86	66.9	55	64.5	40.8	36	24.2	26.6	21.8
14.75	122	95.6	93.2	98	38.4	81.2	86	66.9	55	66.9	43.1	36	24.2	26.6	21.8
15	124.2	95.4	95.4	97.8	38.2	81	88.2	69.1	54.8	66.7	42.9	38.2	24	26.4	21.6
15.25	129.2	98	95.6	98	40.8	83.6	88.4	69.3	55	66.9	43.1	38.4	24.2	26.6	21.8
15.5	131.5	97.8	95.4	100.2	40.6	83.4	88.2	69.1	57.2	66.7	45.3	38.2	26.4	26.4	21.6
15.75	136.5	98	98	100.4	38.4	83.6	90.8	69.3	57.4	69.3	45.5	38.4	24.2	26.6	21.8
16	141.3	100.4	98	102.8	38.4	86	90.8	69.3	57.4	69.3	45.5	38.4	26.6	26.6	21.8
16.25	143.9	103	98.2	103	41	86.2	93.4	71.9	57.6	69.5	48.1	38.6	26.8	29.1	22
16.5	148.7	103	100.6	105.4	38.6	86.2	93.4	71.9	60	69.5	48.1	41	26.8	29.1	22
16.75	153.6	103	103	105.4	38.6	88.6	93.4	71.9	60	69.5	48.1	41	26.8	29.1	22
17	158.4	105.4	103	107.8	41	91	95.8	74.3	60	71.9	48.1	41	26.8	29.1	22
17.25	163.2	105.4	103	110.2	38.6	93.4	95.8	74.3	62.3	71.9	50.4	41	26.8	29.1	24.4
17.5	168.2	108	105.6	110.4	41.2	93.6	98.4	76.9	62.5	74.5	50.6	41.2	27	29.3	22.2
17.75	170.5	110.2	107.8	115	41	95.8	98.2	76.7	62.3	74.3	50.4	41	26.8	29.1	22
18	175.3	112.6	107.8	117.4	41	98.2	100.6	79	64.7	74.3	50.4	43.3	29.1	29.1	22
18.25	177.9	115.2	110.4	117.6	41.2	98.4	100.8	79.2	64.9	74.5	50.6	43.5	29.3	31.7	22.2
18.5	182.7	115.2	112.8	120	41.2	100.8	103.2	81.6	64.9	76.9	53	43.5	29.3	31.7	22.2
18.75	185.3	117.8	113	122.6	41.4	101	103.4	81.8	65.1	79.4	53.2	43.7	29.5	31.9	22.4
19	190	120	115.2	124.8	38.8	103.2	103.2	86.4	67.3	79.2	53	45.9	29.3	31.7	24.6
19.25	192.6	122.6	117.8	127.4	39	103.4	103.4	86.6	67.5	79.4	55.6	46.1	29.5	31.9	24.8
19.5	197.2	124.8	120	129.6	38.8	105.6	103.2	88.8	69.7	81.6	55.4	45.9	29.3	31.7	24.6
19.75	199.6	129.6	120	132.1	38.8	105.6	105.6	88.8	69.7	81.6	55.4	48.3	29.3	31.7	24.6
20	204.2	131.9	122.2	134.3	38.6	105.4	105.4	91	71.9	83.8	55.2	48.1	29.1	31.5	24.4
20.25	206.9	134.5	124.8	136.9	38.8	105.6	105.6	93.6	72.1	84	57.8	48.3	31.7	34.1	24.6
20.5	211.5	136.7	127	139.1	38.6	105.4	105.4	93.4	74.3	83.8	57.6	48.1	31.5	33.9	24.4
20.75	213.9	141.5	131.9	141.5	41	105.4	107.8	95.8	74.3	86.2	57.6	50.4	31.5	33.9	24.4
21	219.1	144.3	134.7	144.3	41.4	105.8	108.2	98.6	77.1	89	60.4	50.8	31.9	34.3	24.8
21.25	221.1	148.7	136.7	146.3	41	105.4	110.2	100.6	76.7	88.6	60	50.4	31.5	33.9	24.4
21.5	223.7	153.8	139.3	148.9	41.2	105.6	110.4	103.2	79.2	91.2	62.5	53	31.7	36.4	24.6
21.75	228.7	161.2	141.9	154	41.4	105.8	113	103.4	79.4	91.4	62.7	53.2	34.3	36.6	24.8
22	231	163.4	144.1	156.2	38.8	105.6	112.8	105.6	81.6	93.6	64.9	53	34.1	36.4	24.6
22.25	235.6	170.5	148.7	158.4	38.6	107.8	115	103	83.8	93.4	64.7	52.8	33.9	36.2	24.4
22.5	238.2	175.5	151.3	161	38.8	108	115.2	105.6	84	96	64.9	55.4	34.1	36.4	24.6
22.75	243	180.3	156.2	163.4	38.8	108	117.6	105.6	84	96	67.3	55.4	34.1	36.4	24.6
23	248	187.8	158.8	166	41.4	108.2	120.2	105.8	86.6	98.6	69.9	55.6	34.3	39	24.8
23.25	252.8	192.6	161.2	170.9	39	108.2	122.6	105.8	89	101	69.9	55.6	36.6	39	24.8
23.5	257.6	199.8	166	173.3	41.4	108.2	122.6	105.8	89	101	72.3	58	34.3	39	24.8
23.75	260	204.6	168.4	175.7	39	110.6	125	108.2	91.4	101	72.3	58	36.6	39	24.8
24	267.2	211.9	173.3	178.1	39	110.6	127.4	110.6	93.8	103.4	74.7	58	36.6	39	24.8
24.25	272	216.7	175.7	180.5	39	110.6	129.8	105.8	93.8	103.4	74.7	58	36.6	39	24.8
24.5	276.7	221.5	180.5	185.3	39	113	132.3	108.2	96.2	105.8	77.1	60.4	36.6	39	24.8
24.75	281.5	228.7	185.3	187.8	39	113	134.7	108.2	98.6	105.8	77.1	60.4	36.6	41.4	24.8
25	286.3	233.6	187.8	190.2	39	115.4	137.1	110.6	98.6	105.8	79.4	62.7	36.6	41.4	24.8
25.25	291.1	238.4	192.6	195	39	115.4	139.5	110.6	101	105.8	79.4	62.7	39	41.4	24.8
25.5	295.8	243.2	197.4	199.8	39	117.8	141.9	110.6	103.4	105.8	81.8	62.7	39	41.4	24.8
25.75	300.4	247.8	202	202	38.8	120	146.5	112.8	103.2	105.6	81.6	64.9	38.8	41.2	27
26	305	252.4	206.7	206.7	36.2	122.2	148.7	115	105.4	107.8	83.8	64.7	38.6	43.3	26.8
26.25	311.9	257	211.3	208.9	38.4	124.4	150.9	114.8	105.2	107.6	86	64.5	40.8	43.1	26.6
26.5	316.8	262	216.3	213.9	38.6	127	156	117.4	105.4	105.4	86.2	64.7	41	43.3	26.8
26.75	324.1	264.6	218.9	218.9	38.8	127.2	158.6	117.6	105.6	108	86.4	67.3	41.2	43.5	27
27	329.1	269.6	226.3	223.9	39	129.8	163.6	120.2	105.8	108.2	89	67.5	41.4	46.1	27.2
27.25	336.2	274.4	231.2	228.7	41.4	134.7	166	122.6	105.8	108.2	89	67.5	41.4	46.1	27.2
27.5	340.9	276.7	236	233.6	41.4	134.7	170.9	125	105.8	108.2	91.4	69.9	43.7	46.1	27.2

27.75	348.2	281.7	238.6	238.6	41.6	139.7	175.9	127.6	106	108.4	94	70.1	43.9	46.3	27.4
28	352.9	286.5	243.4	243.4	41.6	142.1	178.3	132.5	106	108.4	94	72.5	43.9	46.3	27.4
28.25	357.8	289.1	248.4	248.4	41.8	144.7	183.3	135.1	106.2	108.6	94.2	70.3	44.1	46.5	27.6
28.5	362.5	293.9	253.2	253.2	41.8	149.5	188.2	135.1	106.2	108.6	96.6	72.7	46.5	48.9	27.6
28.75	367.2	298.6	258	258	41.8	151.9	193	139.9	106.2	108.6	96.6	72.7	46.5	48.9	27.6
29	371.9	301	262.8	262.8	41.8	156.8	195.4	142.3	106.2	108.6	99	75.1	46.5	48.9	27.6
29.25	376.6	305.8	265.2	267.6	41.8	159.2	200.2	144.7	106.2	108.6	99	75.1	46.5	51.2	27.6
29.5	381.2	310.5	270	272.4	41.8	161.6	205	147.1	106.2	111	99	77.5	46.5	51.2	27.6
29.75	385.9	315.3	274.8	274.8	41.8	166.4	209.9	149.5	106.2	111	101.4	77.5	46.5	51.2	27.6
30	390.6	320	277.1	279.5	41.8	168.8	212.3	154.4	106.2	113.4	103.8	77.5	46.5	51.2	27.6
30.25	395	324.5	281.7	281.7	41.6	171.1	216.9	156.6	106	113.2	103.6	79.6	48.7	53.4	27.4
30.5	399.9	329.5	286.7	286.7	41.8	176.1	219.5	159.2	108.6	115.8	103.8	79.8	48.9	53.6	27.6
30.75	406.9	331.8	289.1	289.1	41.8	178.5	224.3	164	106.2	115.8	103.8	79.8	48.9	53.6	27.6
31	411.7	336.8	294.1	294.1	42	181.1	229.3	166.6	106.4	118.4	104	82.4	51.4	56.2	27.8
31.25	416.4	341.5	296.4	296.4	44.3	185.9	231.8	169	108.8	120.8	104	82.4	51.4	56.2	27.8
31.5	423.1	346	301	301	44.1	190.6	236.4	173.7	108.6	123	103.8	84.6	51.2	56	29.9
31.75	428	350.9	303.6	303.6	44.3	193.2	239	178.7	108.8	123.2	106.4	84.8	51.4	56.2	27.8
32	434.9	355.6	308.3	308.3	44.3	195.6	243.8	178.7	106.4	125.6	104	84.8	53.8	58.6	27.8
32.25	439.5	360.3	310.7	310.7	44.3	200.4	248.6	183.5	108.8	128	106.4	87.2	53.8	58.6	30.1
32.5	446.7	365.2	315.7	315.7	44.5	205.4	251.2	186.1	109	130.6	106.6	87.4	54	58.8	30.3
32.75	453.4	369.7	317.8	320.2	44.3	207.7	255.8	190.8	108.8	132.9	106.4	87.2	56.2	58.6	30.1
33	460.1	374.2	322.4	322.4	44.1	212.3	260.4	193	108.6	132.7	106.2	89.4	56	60.8	29.9
33.25	464.7	378.9	327.1	327.1	44.1	214.7	262.8	197.8	108.6	137.5	106.2	89.4	56	60.8	29.9
33.5	471.6	381.2	329.5	331.8	44.1	219.5	267.6	200.2	106.2	139.9	106.2	91.8	56	63.1	29.9
33.75	478.5	385.9	334.2	334.2	44.1	221.9	270	202.6	108.6	142.3	106.2	91.8	58.4	63.1	29.9
34	483.1	388.2	336.6	338.9	44.1	226.7	274.8	205	108.6	144.7	106.2	91.8	58.4	65.5	29.9
34.25	490	392.9	341.3	343.7	44.1	231.6	279.5	209.9	108.6	147.1	106.2	94.2	58.4	65.5	29.9
34.5	496.5	394.8	345.6	348	43.7	236	281.5	211.9	108.2	149.1	105.8	93.8	58	65.1	29.5
34.75	501.1	399.5	350.3	350.3	41.4	238.4	286.3	216.7	108.2	151.5	105.8	93.8	60.4	67.5	29.5
35	505.8	402	355.2	355.2	43.9	243.4	288.9	219.3	108.4	154.2	106	94	60.6	67.7	32.1
35.25	510.2	404.2	357.4	359.7	43.7	248	293.5	221.5	108.2	156.4	105.8	96.2	62.7	67.5	31.9
35.5	514.8	406.5	362.1	364.4	46.1	252.8	295.8	226.3	108.2	161.2	105.8	96.2	62.7	69.9	31.9
35.75	519.6	409	367	369.3	43.9	257.8	300.8	231.4	110.8	163.8	106	98.8	62.9	70.1	32.1
36	522.1	413.9	371.9	374.2	44.1	262.8	305.8	234	111	166.4	106.2	99	65.5	70.3	32.3
36.25	526.6	416.2	376.6	378.9	44.1	265.2	308.1	236.4	111	168.8	106.2	99	65.5	72.7	32.3
36.5	528.9	418.5	381.2	383.6	44.1	270	312.9	241.2	113.4	171.3	106.2	99	65.5	72.7	32.3
36.75	533.3	420.6	383.4	388	43.9	274.6	315.1	243.4	113.2	175.9	106	98.8	67.7	74.9	32.1
37	535.4	422.7	387.8	390.2	43.7	279.1	319.6	245.6	115.4	178.1	105.8	101	67.5	74.7	31.9
37.25	540.2	427.6	392.7	395	41.6	281.7	322.2	250.6	115.6	180.7	106	101.2	67.7	74.9	32.1
37.5	542	427.2	397	399.3	41.2	286.1	326.5	252.6	117.6	185.1	105.6	100.8	69.7	76.9	34.1
37.75	544.1	431.6	399.1	401.4	41	290.7	328.7	254.8	117.4	187.4	105.4	103	69.5	76.7	33.9
38	546.4	433.9	403.8	406.1	41	293.1	333.4	259.6	119.8	192.2	105.4	103	71.9	79	33.9
38.25	548.7	436.2	408.4	408.4	41	297.8	335.8	264.4	122.2	194.6	105.4	103	71.9	79	33.9
38.5	551	438.5	410.7	410.7	41	302.6	340.5	266.8	124.6	197	105.4	103	71.9	79	33.9
38.75	553.3	440.9	415.4	415.4	41	307.3	342.9	269.2	124.6	199.4	105.4	103	74.3	81.4	33.9
39	555.3	443	417.5	419.8	43.1	309.5	347.4	273.8	126.8	204	107.6	102.8	74.1	81.2	33.7
39.25	557.2	444.9	421.7	421.7	40.4	313.9	351.7	275.7	128.8	206.1	104.8	104.8	76.1	83.2	33.3
39.5	559.5	447.2	424.1	426.4	40.4	318.6	354	280.5	131.3	210.9	104.8	104.8	76.1	83.2	33.3
39.75	561.8	447.2	426.4	428.7	40.4	323.3	358.7	282.9	133.7	213.3	107.2	104.8	78.4	83.2	35.6
40	561.8	451.8	431	433.3	42.7	328.1	361.1	287.7	136.1	218.1	107.2	107.2	78.4	85.6	35.6
40.25	564.3	452	435.8	435.8	42.9	330.6	366	290.3	141.1	220.7	107.4	107.4	78.6	85.8	35.8
40.5	566.6	454.3	438.1	438.1	42.9	335.4	370.7	292.7	143.5	223.1	107.4	107.4	81	88.2	35.8
40.75	566.6	456.6	440.5	440.5	42.9	337.7	375.4	297.4	145.9	227.9	107.4	107.4	81	88.2	35.8
41	568.7	456.4	442.6	442.6	42.7	342.3	377.5	299.6	148.1	230.2	107.2	107.2	80.8	88	35.6
41.25	568.7	458.7	444.9	447.2	42.7	347	382.2	302	150.5	232.6	107.2	109.6	83.2	90.4	35.6
41.5	570.9	461	447.2	447.2	42.7	351.7	386.8	306.7	153	237.4	107.2	109.6	83.2	90.4	35.6
41.75	571.1	463.5	449.7	452	42.9	354.2	389.4	309.3	158	240	107.4	109.8	83.4	90.6	35.8
42	573.6	463.7	452.2	454.5	43.1	359.1	394.2	314.3	160.6	242.6	107.6	112.4	83.6	93.2	36

42.25	573.6	466	454.5	456.8	45.5	363.8	396.6	316.6	163	247.4	107.6	112.4	86	93.2	38.4
42.5	573.6	468.3	456.8	459.1	43.1	366.2	401.2	316.6	165.4	249.8	107.6	112.4	86	93.2	38.4
42.75	576.1	468.5	459.3	461.6	45.7	371.1	406.1	321.6	170.5	252.4	107.8	115	88.6	95.8	38.6
43	576.1	470.8	461.6	463.9	45.7	375.8	408.4	323.9	172.9	257.2	107.8	115	88.6	95.8	38.6
43.25	578.6	471	464.1	464.1	45.9	380.6	410.9	328.9	175.5	259.8	108	117.6	88.8	96	38.8
43.5	578.6	473.3	464.1	466.4	43.5	383	415.6	328.9	180.3	262.2	108	117.6	91.2	96	38.8
43.75	578.4	473.1	466.2	468.5	43.3	385.1	417.7	333.4	182.5	264.4	107.8	117.4	91	98.2	38.6
44	580.7	475.4	468.5	470.8	43.3	389.8	420	335.8	184.9	269.2	107.8	117.4	91	98.2	38.6
44.25	580.7	477.7	468.5	473.1	43.3	392.1	424.7	338.1	187.4	271.6	107.8	119.8	91	98.2	38.6
44.5	583	477.7	470.8	473.1	43.3	396.8	427	340.5	192.2	274	107.8	119.8	93.4	100.6	38.6
44.75	582.8	479.8	472.9	475.2	43.1	398.9	429.1	342.7	194.4	278.5	110	122	93.2	100.4	40.8
45	583	482.3	475.4	477.7	43.3	403.8	431.6	345.2	199.4	281.1	110.2	122.2	95.8	100.6	41
45.25	584.9	484.2	475	479.6	42.9	405.7	435.8	347.2	201.4	283.1	112.2	124.2	95.4	100.2	40.6
45.5	585.1	484.4	477.5	482.1	43.1	410.5	438.3	349.7	206.5	285.7	112.4	124.4	95.6	102.8	40.8
45.75	587.2	486.5	479.6	481.9	42.9	412.7	440.5	349.5	208.7	287.9	114.6	126.6	97.8	102.6	40.6
46	587	486.3	481.7	484	42.7	414.8	442.6	354	210.9	292.5	114.4	126.4	97.6	102.4	40.4
46.25	589.4	488.8	481.9	486.5	42.9	417.3	447.4	356.6	213.5	295	117	129	97.8	102.6	40.6
46.5	589.6	491.3	484.4	489	43.1	419.8	449.9	359.1	218.5	297.6	119.6	131.7	100.4	102.8	40.8
46.75	592.1	491.5	486.9	489.2	43.3	424.7	452.4	361.7	221.1	300.2	119.8	131.9	100.6	105.4	41
47	591.9	493.6	489	491.3	40.8	426.8	454.5	363.8	223.3	304.8	122	131.7	100.4	102.8	40.8
47.25	591.7	495.7	491.1	493.4	40.6	428.9	456.6	363.6	227.9	306.9	124.2	133.9	100.2	105	40.6
47.5	594	495.7	491.1	495.7	40.6	433.5	458.9	368.3	230.4	309.3	126.6	133.9	102.6	105	40.6
47.75	594.4	498.4	493.8	498.4	43.3	436.2	463.9	371.1	235.6	312.1	129.4	136.7	103	105.4	43.3
48	596.7	500.7	496.1	500.7	43.3	438.5	466.2	373.4	238	316.8	131.9	139.1	103	105.4	43.3
48.25	596.7	502.9	496.1	502.9	45.7	436.2	470.8	375.8	240.4	319.2	134.3	139.1	103	105.4	43.3
48.5	596.7	505.2	498.4	502.9	45.7	436.2	475.4	378.1	242.8	321.6	136.7	141.5	103	105.4	43.3
48.75	596.7	507.5	498.4	505.2	45.7	433.9	473.1	382.8	247.6	323.9	141.5	141.5	103	105.4	43.3
49	594.2	507.3	498.2	505	45.5	431.4	470.6	384.9	249.8	326.1	141.3	143.7	102.8	105.2	43.1
49.25	594.4	509.8	498.4	505.2	43.3	431.6	470.8	389.8	252.4	328.7	146.3	146.3	103	105.4	43.3
49.5	594.2	509.6	500.5	505	43.1	431.4	470.6	391.9	254.6	330.8	148.5	146.1	102.8	105.2	43.1
49.75	594.2	509.6	500.5	505	43.1	431.4	470.6	394.2	257	333.2	150.9	148.5	102.8	105.2	43.1
50	593.8	511.5	500.1	506.9	42.7	433.3	470.2	396.2	261.4	335.2	155.4	150.5	104.8	104.8	42.7
50.25	593.8	511.5	500.1	506.9	42.7	433.3	472.5	396.2	263.8	337.5	157.8	150.5	102.4	104.8	45.1
50.5	596.1	513.8	502.3	506.9	42.7	433.3	472.5	398.5	266.2	339.9	160.2	153	104.8	104.8	42.7
50.75	596.1	513.8	502.3	509.2	42.7	435.6	472.5	400.8	268.6	342.3	162.6	153	104.8	104.8	45.1
51	598.2	515.9	504.4	509	42.5	435.4	474.6	405.3	270.8	344.4	167.2	155.2	102.2	104.6	42.5
51.25	598.6	516.3	504.8	509.4	45.3	438.1	475	405.7	275.9	347.2	170.1	158	102.6	105	45.3
51.5	598.8	518.8	507.3	511.9	43.1	438.3	477.5	408.2	278.5	349.7	172.7	160.6	102.8	105.2	45.5
51.75	598.6	518.6	507.1	511.7	42.9	440.5	477.3	410.3	280.7	351.9	177.3	160.4	102.6	105	45.3
52	598.6	520.9	509.4	514	42.9	442.8	479.6	412.7	283.1	354.2	179.7	162.8	105	105	45.3
52.25	601.1	521.1	509.6	514.2	43.1	445.3	482.1	415.2	285.7	356.8	182.3	165.4	102.8	105.2	45.5
52.5	600.9	523.1	511.7	516.3	42.9	445.1	481.9	417.3	287.9	358.9	184.5	167.6	102.6	105	45.3
52.75	603.6	523.5	512.1	519	43.3	447.8	484.6	420	290.7	361.7	189.8	168	105.4	105.4	45.7
53	603.4	525.6	514.2	518.8	43.1	449.9	484.4	422.1	295.2	363.8	192	170.3	102.8	105.2	45.5
53.25	603.8	528.3	516.9	521.5	43.5	450.3	487.1	424.9	298	366.6	194.8	170.7	103.2	105.6	45.9
53.5	606.3	528.5	517.1	521.7	43.7	455.1	489.6	427.4	300.6	371.5	199.8	173.3	105.8	105.8	46.1
53.75	606.3	530.8	519.4	523.9	41.4	455.1	489.6	429.7	303	371.5	202.2	175.7	105.8	105.8	46.1
54	606.1	530.6	519.2	526	43.5	457.2	491.7	431.8	305.2	376	204.4	177.9	103.2	105.6	45.9
54.25	606.1	532.9	521.5	526	43.5	459.5	494	434.1	307.5	378.3	209.3	180.3	105.6	105.6	48.3
54.5	606.1	532.9	521.5	526	43.5	461.8	496.3	436.4	312.3	380.6	211.7	180.3	105.6	105.6	48.3
54.75	608.4	535.2	523.7	528.3	43.5	461.8	496.3	438.7	314.7	383	214.1	182.7	105.6	105.6	48.3
55	610.4	537.3	523.5	528.1	43.3	463.9	498.4	438.5	316.8	387.4	218.7	184.9	105.4	105.4	48.1
55.25	612.7	537.3	525.8	530.4	43.3	466.2	500.7	443.2	319.2	389.8	221.1	187.4	105.4	105.4	48.1
55.5	612.7	537.3	528.1	532.7	43.3	468.5	500.7	445.5	321.6	392.1	223.5	187.4	105.4	105.4	48.1
55.75	612.5	539.4	527.9	532.5	43.1	468.3	502.7	447.6	323.7	394.2	228.1	189.6	105.2	105.2	47.9
56	612.5	539.4	530.2	532.5	43.1	470.6	502.7	449.9	328.5	396.6	230.6	192	105.2	105.2	47.9
56.25	615	541.8	532.7	535	41	473.1	505.2	450.1	331	399.1	233.2	194.6	105.4	105.4	48.1
56.5	615.2	542	532.9	535.2	41.2	473.3	507.7	452.6	333.6	404	238.2	197.2	105.6	105.6	48.3

56.75	615.2	544.3	532.9	537.5	41.2	475.6	507.7	457.2	336	406.3	240.6	199.6	105.6	105.6	48.3
57	617.5	544.3	535.2	537.5	43.5	477.9	510	457.2	338.3	408.6	243	199.6	105.6	105.6	50.6
57.25	617.7	546.8	535.4	540	43.7	480.4	510.2	459.7	340.9	411.1	248	202.2	105.8	105.8	50.8
57.5	617.7	546.8	537.7	540	43.7	480.4	512.5	462	343.3	413.5	250.4	204.6	105.8	105.8	50.8
57.75	620.2	549.3	537.9	542.4	46.3	482.9	512.7	464.5	345.8	416	253	207.3	106	106	51
58	620	549.1	540	542.2	43.7	482.7	517.1	466.6	348	418.1	255.2	209.5	105.8	105.8	50.8
58.25	620	551.4	540	544.5	41.4	485	517.1	466.6	352.7	420.4	257.6	209.5	105.8	105.8	50.8
58.5	620	551.4	542.2	544.5	41.4	487.3	517.1	468.9	355	422.7	262.4	211.9	105.8	105.8	50.8
58.75	622.3	551.4	542.2	544.5	41.4	489.6	519.4	471.2	357.4	427.4	264.8	214.3	105.8	105.8	50.8
59	622.7	554.1	542.6	547.2	41.8	492.3	519.8	473.9	360.1	430.1	267.6	217.1	106.2	106.2	51.2
59.25	622.7	556.4	544.9	547.2	44.1	492.3	519.8	473.9	362.5	430.1	270	219.5	103.8	106.2	53.6
59.5	625	556.4	544.9	547.2	44.1	494.6	522.1	478.5	364.8	434.7	272.4	221.9	106.2	106.2	53.6
59.75	625.2	558.8	547.4	549.7	44.3	497.1	522.3	478.7	367.4	437.2	277.3	222.1	104	106.4	51.4
60	625	558.6	547.2	549.5	44.1	496.9	524.3	480.8	369.5	437	279.5	224.3	103.8	106.2	53.6
60.25	627.3	558.6	549.5	549.5	41.8	499.2	524.3	483.1	371.9	439.3	281.9	226.7	106.2	106.2	53.6
60.5	627.5	561.1	549.7	552	44.3	499.4	526.8	483.3	374.4	444.2	284.5	229.3	106.4	106.4	53.8
60.75	627.5	561.1	552	552	44.3	501.7	524.5	485.6	376.8	446.5	286.9	231.8	104	106.4	53.8
61	630	563.6	554.5	552.2	42.2	501.9	524.7	488.1	379.3	449	289.5	234.4	104.2	106.6	54
61.25	627.5	563.4	554.3	552	44.3	501.7	524.5	487.9	381.4	451.1	291.7	236.6	104	106.4	53.8
61.5	627.3	565.5	554.1	551.8	44.1	496.9	524.3	490	385.9	453.2	293.9	238.8	103.8	106.2	53.6
61.75	627.3	565.5	554.1	551.8	44.1	494.6	524.3	492.3	388.2	455.5	296.2	238.8	103.8	106.2	53.6
62	626.9	565.1	553.7	553.7	41.4	489.6	523.9	491.9	390.2	457.4	300.6	240.8	103.4	105.8	53.2
62.25	626.5	567	553.3	551	41	491.5	523.5	493.8	392.1	459.3	302.6	242.8	103	107.8	52.8
62.5	629	567.2	553.5	553.5	41.2	496.3	526	496.3	392.3	461.8	305.2	245.4	103.2	108	53
62.75	629	567.2	555.7	553.5	41.2	498.6	526	496.3	394.6	461.8	307.5	247.8	103.2	108	53
63	629	567.2	555.7	553.5	41.2	500.9	526	498.6	397	464.1	309.9	252.6	103.2	108	53
63.25	628.8	569.3	557.8	553.3	43.3	502.9	525.8	498.4	399.1	466.2	312.1	252.4	103	107.8	52.8
63.5	631.1	569.3	557.8	555.5	43.3	502.9	528.1	500.7	399.1	468.5	314.5	257.2	103	107.8	52.8
63.75	630.9	569.1	559.9	555.3	43.1	505	527.9	500.5	401.2	470.6	316.6	259.4	102.8	110	55
64	631.1	571.5	560.1	555.5	43.3	507.5	530.4	502.9	403.8	473.1	319.2	262	103	110.2	55.2
64.25	631.1	571.5	560.1	557.8	43.3	507.5	530.4	502.9	406.1	473.1	321.6	264.4	103	110.2	52.8
64.5	633.6	574	562.6	558	43.5	510	530.6	505.4	408.6	475.6	324.1	267	103.2	112.8	55.4
64.75	633.8	574.2	562.8	558.2	46.1	510.2	533.1	505.6	411.1	478.1	326.7	269.6	103.4	113	55.6
65	633.8	574.2	565.1	560.5	46.1	512.5	533.1	507.9	413.5	478.1	329.1	272	103.4	113	55.6
65.25	636.5	576.9	565.5	560.9	46.5	512.9	535.8	508.3	416.2	480.8	331.8	274.8	106.2	115.8	56
65.5	636.5	576.9	567.8	560.9	46.5	515.2	535.8	510.6	418.5	483.1	334.2	277.1	106.2	115.8	56
65.75	636.5	576.9	567.8	563.2	44.1	517.5	538.1	510.6	420.8	485.4	336.6	279.5	106.2	115.8	56
66	636.7	577.1	568	563.4	44.3	520	538.3	510.8	423.3	485.6	339.1	282.1	106.4	118.4	56.2
66.25	636.9	579.6	570.5	563.6	44.5	520.2	540.8	513.3	425.9	488.1	341.7	287.1	106.6	118.6	56.4
66.5	639	579.4	570.3	565.7	44.3	522.3	540.6	513.1	430.3	490.2	343.9	289.3	106.4	120.8	56.2
66.75	639.2	579.6	572.7	565.9	44.5	522.5	540.8	513.3	442.1	490.4	346.4	291.9	106.6	121	56.4
67	639.2	581.9	572.7	565.9	44.5	522.5	540.8	515.6	446.7	490.4	348.8	294.3	106.6	123.4	56.4
67.25	639	581.7	572.5	565.7	44.3	524.5	540.6	517.7	451.1	492.5	350.9	296.4	108.8	123.2	56.2
67.5	639	584	572.5	565.7	46.7	524.5	540.6	517.7	453.4	492.5	350.9	301.2	108.8	125.6	56.2
67.75	639.2	584.2	575	568.2	46.9	527	540.8	520.2	455.9	495	353.5	303.8	109	125.8	58.8
68	639.4	584.4	575.2	568.4	47.1	527.2	543.2	520.4	456.1	497.5	356	306.4	111.6	128.4	56.6
68.25	639.4	584.4	575.2	568.4	47.1	529.5	543.2	520.4	460.7	497.5	358.4	308.7	111.6	130.8	59
68.5	639.4	584.4	575.2	568.4	47.1	529.5	543.2	522.7	460.7	499.8	363.1	311.1	111.6	133.3	59
68.75	639.4	584.4	577.5	570.7	47.1	529.5	545.5	522.7	463	502.1	363.1	315.9	114	133.3	59
69	641.9	584.6	577.7	570.9	47.3	532	548	522.9	465.5	502.3	365.6	318.4	114.2	135.9	59.2
69.25	641.7	586.7	577.5	570.7	47.1	531.8	547.8	524.9	465.3	504.3	370.1	320.6	116.4	138.1	59
69.5	641.5	586.5	579.6	572.7	46.9	533.9	547.6	524.7	467.4	504.1	372.3	325.1	116.2	140.3	58.8
69.75	641.5	586.5	579.6	572.7	44.5	533.9	549.9	524.7	469.7	506.4	374.6	327.5	118.6	140.3	58.8
70	641.5	588.8	581.9	572.7	44.5	533.9	549.9	527	469.7	506.4	379.3	332.2	118.6	142.7	58.8
70.25	641.7	589	582.1	575.2	44.7	536.4	550.1	527.2	472.2	508.9	381.8	334.8	121.2	145.3	61.4
70.5	641.7	589	582.1	575.2	44.7	536.4	552.4	529.5	474.5	511.2	386.5	337.2	123.6	147.7	61.4
70.75	644	589	582.1	575.2	47.1	536.4	552.4	529.5	476.8	511.2	388.8	339.5	123.6	147.7	63.7
71	644	591.2	584.4	575.2	47.1	538.7	552.4	529.5	476.8	511.2	391.2	344.3	126	150.1	63.7

71.25	644	591.2	584.4	577.5	47.1	538.7	554.7	529.5	479.1	513.5	395.8	346.6	126	152.5	61.4
71.5	644.2	591.4	584.6	577.7	47.3	538.9	554.9	532	481.6	513.7	400.7	349.2	128.6	155.2	63.9
71.75	644.4	591.6	584.8	577.9	49.9	541.4	557.4	532.2	484.1	516.2	403.2	351.7	131.2	157.8	64.1
72	646.7	593.9	587.1	577.9	49.9	541.4	557.4	532.2	484.1	516.2	405.6	354.1	133.7	160.2	64.1
72.25	646.9	594.1	587.3	580.4	47.7	543.8	557.6	534.7	486.6	518.7	410.4	356.6	136.3	162.8	64.3
72.5	646.9	594.1	587.3	580.4	47.7	543.8	557.6	534.7	486.6	518.7	412.7	359	136.3	165.2	64.3
72.75	646.9	594.1	587.3	582.7	47.7	546.1	559.8	534.7	488.9	521	417.4	361.3	138.7	165.2	64.3
73	646.7	593.9	589.4	582.5	45.1	545.9	559.6	536.8	491	520.8	419.5	363.5	140.9	167.4	64.1
73.25	649	593.9	589.4	582.5	45.1	545.9	561.9	536.8	491	520.8	424.1	365.8	143.3	169.8	66.5
73.5	649.2	596.4	591.8	582.7	45.3	548.4	562.1	537	491.2	523.3	426.7	366	143.5	172.5	66.7
73.75	649.4	596.6	592	585.2	45.5	548.6	562.3	539.5	493.7	523.5	429.2	368.6	148.5	175.1	66.9
74	649.4	596.6	592	585.2	45.5	550.9	564.6	539.5	496	525.7	433.8	370.9	150.9	177.5	66.9
74.25	649.4	598.9	594.3	585.2	45.5	550.9	564.6	539.5	496	525.7	436.1	373.3	150.9	179.9	66.9
74.5	649	598.5	593.9	587.1	45.1	552.8	566.5	539.1	497.9	527.6	438	375.2	152.9	179.5	66.5
74.75	649	598.5	593.9	587.1	45.1	552.8	566.5	541.4	497.9	529.9	440.3	377.6	157.8	184.3	66.5
75	651.5	601	594.1	587.3	43	555.3	566.7	541.6	498.1	530.1	445.2	380.1	160.4	186.9	66.7
75.25	651.9	601.4	596.8	587.7	45.7	555.7	569.4	542	500.8	530.5	447.9	382.8	160.8	187.3	67.1
75.5	652.3	601.8	597.2	588.1	46.1	556.1	569.8	544.6	505.7	533.2	450.6	387.9	163.6	192.6	67.5
75.75	652.9	602.4	597.8	591	46.7	559	570.4	545.2	506.3	533.8	453.5	390.8	166.6	193.2	70.5
76	653.5	603	598.4	591.6	47.3	559.6	571	545.8	509.2	536.7	456.4	391.4	169.6	196.2	71.1
76.25	653.9	603.4	601.1	594.2	47.7	562.2	573.7	546.2	511.9	537.1	459.1	394.2	172.4	199	71.5
76.5	654.5	606.3	601.7	594.8	50.7	562.8	574.3	546.8	512.5	537.7	462	394.8	175.5	202	72.1
76.75	654.5	606.3	601.7	594.8	48.3	562.8	574.3	546.8	512.5	540	464.3	397.1	177.9	204.4	72.1
77	654.3	606.1	601.5	594.6	50.5	564.9	576.4	548.9	514.6	539.8	466.4	399.2	180.1	206.6	71.9
77.25	653.9	605.7	603.4	596.5	50.1	564.5	576	548.5	514.2	541.7	468.3	401.2	182.1	208.6	71.5
77.5	655.4	604.9	602.6	595.7	49.3	566	575.2	547.7	513.4	540.9	469.8	400.4	183.7	210.3	70.7
77.75	652.7	604.5	602.2	595.3	48.9	565.6	577	549.6	515.3	540.5	471.7	402.3	185.7	212.3	70.3
78	654.8	604.3	604.3	595.1	46.3	567.7	576.8	549.4	515.1	542.6	471.5	404.4	187.9	214.5	72.5
78.25	654.8	606.6	604.3	597.4	46.3	567.7	576.8	549.4	515.1	542.6	473.8	404.4	190.4	214.5	72.5
78.5	654.6	606.4	604.1	597.2	48.5	567.5	576.6	549.2	514.9	544.6	475.9	406.6	192.6	219.1	72.3
78.75	654.6	606.4	604.1	597.2	46.1	569.8	578.9	549.2	519.5	544.6	475.9	406.6	192.6	221.5	72.3
79	654.2	606	603.7	596.8	48.1	569.4	578.5	548.8	521.4	544.2	477.8	408.5	197	223.5	71.9
79.25	654.2	606	603.7	596.8	48.1	569.4	578.5	548.8	521.4	546.5	477.8	408.5	197	223.5	71.9
79.5	654	605.8	603.5	596.6	47.9	569.2	578.3	550.9	523.5	546.3	479.9	410.6	199.2	225.7	71.7
79.75	653.6	605.4	603.1	598.5	47.5	571.1	580.2	550.5	523.1	545.9	479.5	412.5	201.2	227.7	71.3
80	655.9	607.7	605.4	598.5	45.1	571.1	580.2	550.5	523.1	548.2	481.8	412.5	203.6	230.1	71.3
80.25	655.9	607.7	605.4	598.5	45.1	571.1	580.2	552.8	525.3	548.2	481.8	414.9	206	230.1	71.3
80.5	655.7	607.5	605.2	598.3	47.3	573.1	580	552.6	525.1	548	483.9	414.7	208.3	232.4	71.1
80.75	655.7	607.5	605.2	598.3	47.3	573.1	582.3	552.6	525.1	550.3	483.9	414.7	210.7	234.8	71.1
81	655.9	607.7	607.7	600.8	47.5	573.3	582.5	552.8	525.3	550.5	484.1	417.2	210.9	237.4	71.3
81.25	658.2	607.7	607.7	600.8	47.5	575.6	584.8	552.8	527.6	552.8	486.4	419.5	213.3	239.8	71.3
81.5	655.9	610	607.7	600.8	47.5	575.6	584.8	555.1	527.6	552.8	486.4	419.5	215.7	239.8	71.3
81.75	656.1	610.2	607.9	601	50.1	575.8	585	555.3	527.8	553	488.9	419.7	218.3	242.4	71.5
82	658.4	610.2	607.9	603.3	50.1	578.1	585	555.3	527.8	553	488.9	422	220.7	244.8	71.5
82.25	658.6	610.4	608.1	603.5	50.3	578.3	587.5	555.5	530.3	553.2	491.4	424.5	223.3	247.4	71.7
82.5	658.6	610.4	610.4	603.5	47.9	578.3	587.5	557.8	530.3	555.5	491.4	424.5	225.7	249.8	71.7
82.75	658.6	610.4	610.4	603.5	47.9	578.3	587.5	557.8	530.3	555.5	493.7	424.5	228.1	252.2	71.7
83	658.8	610.6	610.6	603.7	48.1	580.8	587.7	558	530.5	555.7	493.9	427.1	228.3	254.8	71.9
83.25	658.6	612.6	612.6	603.5	47.9	580.6	589.8	557.8	530.3	557.8	496	426.9	233	254.6	74.1
83.5	658.6	612.6	610.4	603.5	47.9	580.6	589.8	560	532.6	557.8	496	429.2	233	257	74.1
83.75	658.8	612.8	612.8	606	45.7	583.1	590	558	532.8	558	498.5	431.7	235.6	259.6	74.3
84	658.4	612.4	612.4	605.6	43	582.7	589.6	559.8	534.7	559.8	498.1	431.3	237.6	261.6	73.9
84.25	657.8	611.8	611.8	605	42.4	582.1	591.2	559.2	534.1	559.2	499.8	433	239.4	263.4	73.3
84.5	657.4	611.4	613.7	604.6	42	581.7	590.8	561.1	536	558.8	499.4	434.9	241.4	263	72.9
84.75	659.9	611.6	613.9	607.1	44.5	584.2	591	561.3	536.2	561.3	501.9	435.1	244	268	75.5
85	659.7	611.4	613.7	606.9	44.3	584	593.1	561.1	536	561.1	501.7	437.2	246.2	267.8	75.3
85.25	659.5	613.5	613.5	606.7	44.1	583.8	590.6	560.9	538.1	560.9	503.7	439.3	248.4	270	75.1
85.5	659.5	611.2	613.5	606.7	46.5	583.8	592.9	560.9	538.1	560.9	503.7	439.3	250.8	272.4	75.1

85.75	659.7	613.7	613.7	606.9	44.3	584	593.1	561.1	538.3	561.1	506.2	441.9	253.4	275	75.3
86	659.5	613.5	613.5	606.7	44.1	583.8	592.9	560.9	540.4	563.2	508.3	444	255.6	277.1	75.1
86.25	659.7	613.7	613.7	606.9	44.3	586.3	593.1	558.8	540.6	563.4	508.5	446.5	255.8	279.7	75.3
86.5	659.9	613.9	616.2	609.4	44.5	586.5	593.3	561.3	540.8	563.6	511	446.7	258.4	279.9	75.5
86.75	659.7	613.7	616	609.2	44.3	586.3	595.4	561.1	542.8	565.7	510.8	448.8	260.6	282.1	75.3
87	659.7	613.7	616	609.2	46.7	586.3	595.4	561.1	542.8	565.7	513.1	448.8	263	284.5	75.3
87.25	659.7	616	616	609.2	46.7	588.6	595.4	561.1	542.8	565.7	513.1	451.1	265.4	286.9	77.7
87.5	659.7	616	618.3	609.2	46.7	588.6	595.4	563.4	545.1	565.7	513.1	453.4	267.8	289.3	77.7
87.75	659.9	616.2	618.5	611.6	46.9	588.8	595.6	563.6	545.3	568.2	515.6	453.6	270.4	289.5	77.9
88	660.1	616.4	618.7	611.8	47.1	591.2	598.1	563.8	545.5	568.4	518.1	453.8	273	294.5	78.1
88.25	659.9	616.2	618.5	611.6	46.9	591	597.9	563.6	547.6	568.2	517.9	455.9	275.2	294.3	77.9

Test 6

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	8.2	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	15.3	15.3	15.3
0.5	22.4	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	15.3	15.3	15.3
0.75	32	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	15.5	15.5	15.5
1	46.4	22.8	20.4	18	18	18	18	18	18	18	18	18	18	15.7	18
1.25	60.5	24.9	20.2	20.2	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	15.5	15.5	15.5
1.5	74.6	29.5	22.4	22.4	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	15.3	15.3	15.3
1.75	84.4	36.8	24.9	27.3	17.8	17.8	17.8	20.2	17.8	17.8	17.8	17.8	17.8	15.5	15.5
2	91.6	43.9	29.7	29.7	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	15.5	15.5	15.5
2.25	91.6	48.6	34.4	34.4	20.2	17.8	17.8	17.8	17.8	17.8	17.8	17.8	15.5	15.5	15.5
2.5	92	53.8	37.2	39.5	20.6	18.2	18.2	20.6	18.2	18.2	18.2	18.2	15.9	15.9	15.9
2.75	94.2	58.3	41.7	41.7	20.4	20.4	18	18	18	18	18	18	15.7	15.7	15.7
3	94.2	60.7	44.1	46.4	20.4	20.4	20.4	20.4	18	18	18	18	15.7	15.7	15.7
3.25	96.8	65.7	49	49	20.6	20.6	20.6	20.6	18.2	18.2	18.2	18.2	15.9	15.9	18.2
3.5	99.2	68.1	51.4	51.4	20.6	20.6	20.6	18.2	18.2	18.2	18.2	18.2	15.9	15.9	18.2
3.75	99	70.3	53.6	53.6	22.8	20.4	20.4	20.4	18	18	18	18	15.7	15.7	18
4	101.4	70.3	56	56	22.8	20.4	20.4	20.4	18	18	18	18	18	15.7	15.7
4.25	101.4	75	58.3	58.3	25.1	20.4	20.4	20.4	18	18	18	18	15.7	15.7	15.7
4.5	104	75.2	60.9	60.9	25.3	20.6	20.6	20.6	18.2	18.2	18.2	18.2	18.2	18.2	18.2
4.75	104.2	75.4	61.1	63.5	25.5	20.8	23.2	20.8	18.4	18.4	18.4	18.4	16.1	18.4	16.1
5	106.6	77.8	63.5	63.5	27.9	20.8	23.2	20.8	18.4	18.4	18.4	18.4	18.4	16.1	18.4
5.25	109.2	80.4	66.1	66.1	30.5	23.4	23.4	21	18.6	18.6	18.6	18.6	18.6	18.6	18.6
5.5	109.2	80.4	66.1	66.1	30.5	23.4	25.7	21	18.6	18.6	18.6	18.6	18.6	18.6	16.3
5.75	111.8	80.6	68.7	68.7	30.7	23.6	23.6	21.2	18.8	18.8	18.8	18.8	18.8	16.5	16.5
6	111.8	80.6	68.7	71.1	33	23.6	25.9	23.6	18.8	18.8	18.8	18.8	16.5	16.5	16.5
6.25	114.2	83	71.1	71.1	33	23.6	25.9	21.2	18.8	18.8	18.8	18.8	16.5	16.5	16.5
6.5	116.6	83	71.1	73.4	35.4	25.9	28.3	21.2	18.8	18.8	18.8	18.8	16.5	16.5	16.5
6.75	116.6	83	71.1	73.4	37.8	25.9	28.3	21.2	18.8	18.8	18.8	18.8	16.5	16.5	16.5
7	119	83	73.4	73.4	37.8	25.9	28.3	21.2	21.2	18.8	18.8	18.8	16.5	16.5	16.5
7.25	119	83	73.4	75.8	37.8	25.9	30.7	23.6	21.2	18.8	18.8	18.8	16.5	18.8	16.5
7.5	121.4	85.4	73.4	75.8	40.1	28.3	30.7	21.2	21.2	18.8	18.8	18.8	16.5	16.5	16.5
7.75	123.8	85.4	75.8	75.8	40.1	28.3	33	23.6	21.2	18.8	18.8	18.8	16.5	16.5	16.5
8	123.6	85.2	75.6	75.6	42.3	28.1	32.8	23.4	21	18.6	18.6	18.6	16.3	16.3	16.3
8.25	126	87.6	75.6	78	42.3	30.5	32.8	23.4	21	18.6	21	18.6	16.3	16.3	16.3
8.5	128.5	87.6	78	78	42.3	30.5	35.2	23.4	23.4	18.6	21	18.6	18.6	18.6	16.3
8.75	128.5	87.6	78	80.4	44.7	30.5	35.2	25.7	21	18.6	21	18.6	16.3	16.3	16.3
9	130.9	87.6	78	80.4	44.7	32.8	35.2	25.7	23.4	18.6	21	18.6	16.3	18.6	16.3
9.25	131.1	90.2	78.2	80.6	47.2	33	37.8	25.9	23.6	18.8	21.2	18.8	16.5	18.8	16.5
9.5	133.7	90.4	80.8	80.8	47.4	33.2	38	26.1	23.8	19	21.4	19	16.7	16.7	16.7
9.75	136.1	90.4	80.8	80.8	49.8	33.2	38	26.1	23.8	19	21.4	19	19	16.7	16.7
10	138.3	90.2	80.6	83	49.6	35.4	40.1	25.9	23.6	18.8	21.2	18.8	16.5	18.8	16.5
10.25	138.3	90.2	80.6	83	49.6	35.4	40.1	25.9	23.6	18.8	21.2	18.8	16.5	16.5	16.5
10.5	140.7	90.2	80.6	83	52	35.4	40.1	25.9	25.9	18.8	21.2	18.8	16.5	16.5	16.5
10.75	140.7	92.6	80.6	83	52	37.8	42.5	25.9	25.9	18.8	23.6	18.8	16.5	16.5	16.5
11	142.9	92.4	82.8	85.2	54.2	37.6	42.3	28.1	25.7	18.6	23.4	18.6	16.3	16.3	16.3
11.25	145.3	92.4	82.8	85.2	54.2	37.6	42.3	28.1	25.7	18.6	23.4	18.6	16.3	16.3	16.3
11.5	147.7	94.8	82.8	85.2	54.2	39.9	42.3	28.1	25.7	18.6	23.4	18.6	16.3	16.3	16.3
11.75	150.2	94.8	82.8	87.6	54.2	39.9	44.7	28.1	28.1	18.6	23.4	18.6	16.3	16.3	16.3
12	152.6	94.8	85.2	87.6	56.6	39.9	44.7	28.1	28.1	18.6	23.4	18.6	16.3	16.3	16.3
12.25	155.2	95	85.4	87.8	56.8	42.5	44.9	30.7	28.3	18.8	23.6	18.8	16.5	16.5	16.5
12.5	157.6	95	85.4	87.8	59.1	42.5	47.2	30.7	28.3	21.2	25.9	18.8	16.5	18.8	16.5
12.75	160	95	85.4	90.2	59.1	42.5	47.2	30.7	28.3	21.2	23.6	18.8	16.5	16.5	16.5
13	162.8	97.8	88.2	90.6	59.5	42.9	50	33.4	28.7	21.6	26.3	19.2	16.9	16.9	19.2

13.25	165.2	97.8	88.2	90.6	59.5	42.9	50	33.4	31.1	21.6	26.3	19.2	16.9	19.2	16.9
13.5	167.6	97.8	88.2	90.6	61.9	45.3	50	33.4	31.1	21.6	26.3	19.2	16.9	16.9	16.9
13.75	170.1	100.2	88.2	93	61.9	45.3	52.4	35.8	31.1	21.6	26.3	19.2	16.9	16.9	16.9
14	172.3	100	90.4	92.8	61.7	45.1	52.2	35.6	30.9	21.4	26.1	19	16.7	16.7	16.7
14.25	174.5	99.8	90.2	95	63.9	47.2	52	35.4	30.7	21.2	25.9	18.8	16.5	16.5	16.5
14.5	179.7	100.2	90.6	95.4	64.3	47.6	52.4	35.8	33.4	24	28.7	19.2	16.9	16.9	16.9
14.75	182.1	102.6	90.6	95.4	64.3	47.6	52.4	35.8	33.4	24	28.7	19.2	16.9	16.9	16.9
15	186.8	102.4	92.8	95.2	64.1	49.8	54.6	38	33.2	23.8	28.5	19	16.7	16.7	16.7
15.25	189.6	105.2	93.2	98	66.9	50.2	55	38.4	33.6	24.2	28.9	19.4	17.1	17.1	17.1
15.5	194.2	105	93	97.8	66.7	50	54.8	38.2	33.4	24	28.7	19.2	16.9	16.9	16.9
15.75	196.4	107.2	95.2	100	66.5	49.8	54.6	38	33.2	23.8	28.5	19	16.7	16.7	16.7
16	201.4	107.4	95.4	100.2	66.7	52.4	54.8	40.5	35.8	24	28.7	19.2	16.9	16.9	16.9
16.25	203.9	109.8	95.4	100.2	69.1	52.4	57.2	40.5	35.8	24	31.1	19.2	16.9	16.9	16.9
16.5	208.7	109.8	97.8	100.2	69.1	52.4	57.2	40.5	35.8	24	31.1	19.2	16.9	16.9	16.9
16.75	213.3	112	100	102.4	68.9	52.2	57	40.3	35.6	23.8	30.9	19	16.7	16.7	16.7
17	215.9	114.6	100.2	102.6	71.5	54.8	59.5	42.9	35.8	24	31.1	19.2	16.9	16.9	16.9
17.25	220.7	117	100.2	102.6	71.5	54.8	59.5	42.9	35.8	26.3	31.1	19.2	16.9	16.9	16.9
17.5	225.7	119.6	102.8	105.2	71.7	55	59.7	43.1	36	26.5	31.3	19.4	17.1	17.1	17.1
17.75	228	124.2	102.6	105	71.5	57.2	59.5	42.9	38.2	26.3	31.1	19.2	16.9	16.9	16.9
18	230.2	126.4	102.4	104.8	73.6	57	61.7	42.7	38	26.1	33.2	19	19	16.7	16.7
18.25	235.2	129.1	102.6	105	73.8	57.2	61.9	45.3	38.2	26.3	33.4	21.6	16.9	16.9	16.9
18.5	237.2	133.5	104.6	107	75.8	59.1	61.5	44.9	37.8	25.9	33	18.8	18.8	18.8	16.5
18.75	242.2	138.5	104.8	107.2	76	59.3	61.7	45.1	38	28.5	33.2	19	16.7	19	16.7
19	244.6	140.9	104.8	109.6	76	59.3	64.1	45.1	38	28.5	33.2	19	16.7	19	16.7
19.25	247.2	145.9	107.4	109.8	78.6	61.9	64.3	45.3	38.2	26.3	33.4	21.6	16.9	16.9	16.9
19.5	249.4	150.6	107.2	112	78.4	61.7	64.1	45.1	40.3	28.5	33.2	19	16.7	16.7	16.7
19.75	254	155.2	107	114.2	80.6	61.5	66.3	47.2	40.1	28.3	33	21.2	16.5	16.5	16.5
20	256.4	160	109.4	116.6	80.6	63.9	66.3	47.2	40.1	28.3	33	21.2	18.8	16.5	16.5
20.25	261	167	111.6	118.8	82.8	63.7	66.1	47	42.3	28.1	32.8	21	16.3	16.3	16.3
20.5	263.6	172.1	114.2	121.4	83	66.3	68.7	49.6	42.5	30.7	35.4	21.2	18.8	16.5	16.5
20.75	266	176.9	114.2	121.4	85.4	66.3	68.7	49.6	42.5	30.7	35.4	21.2	16.5	16.5	16.5
21	270.6	181.5	116.4	126	85.2	66.1	70.9	49.4	42.3	30.5	35.2	21	16.3	16.3	16.3
21.25	272.9	188.8	118.8	128.5	87.6	68.5	70.9	49.4	44.7	30.5	35.2	21	16.3	16.3	16.3
21.5	277.7	193.6	121.2	130.9	87.6	68.5	73.2	51.8	44.7	30.5	35.2	21	16.3	16.3	16.3
21.75	280.1	200.8	123.6	133.3	90	70.9	73.2	49.4	44.7	30.5	35.2	21	16.3	16.3	16.3
22	282.5	208.1	126	135.7	92.4	70.9	75.6	51.8	44.7	30.5	35.2	21	16.3	16.3	16.3
22.25	285.1	213.1	128.7	138.3	92.6	73.4	78.2	52	47.2	30.7	37.8	21.2	16.5	16.5	16.5
22.5	289.7	220.1	130.9	140.5	94.8	75.6	80.4	54.2	47	32.8	37.6	21	16.3	16.3	16.3
22.75	294	227	132.9	144.9	94.4	75.2	80	53.8	46.6	32.4	37.2	20.6	15.9	15.9	15.9
23	298.8	234.2	135.3	147.3	96.8	75.2	82.4	53.8	46.6	32.4	37.2	20.6	15.9	15.9	15.9
23.25	301.2	239	137.7	152.2	99.2	80	84.8	53.8	46.6	32.4	37.2	20.6	15.9	15.9	15.9
23.5	303.9	246.6	140.5	157.4	99.6	80.4	87.6	56.6	49.4	32.8	37.6	23.4	16.3	16.3	16.3
23.75	308.7	253.8	142.9	159.8	102	82.8	87.6	56.6	49.4	32.8	39.9	23.4	18.6	18.6	16.3
24	313.6	258.8	147.9	162.4	102.2	83	87.8	59.1	49.6	33	40.1	23.6	18.8	16.5	18.8
24.25	318.6	266.2	148.1	167.4	102.4	85.6	90.4	59.3	49.8	33.2	40.3	23.8	16.7	16.7	16.7
24.5	320.9	271	153	172.3	102.4	88	92.8	61.7	52.2	35.6	40.3	23.8	16.7	16.7	16.7
24.75	325.7	278.1	155.4	174.7	104.8	88	92.8	61.7	52.2	35.6	40.3	23.8	16.7	16.7	16.7
25	330.4	282.9	157.8	179.5	102.4	90.4	95.2	64.1	52.2	35.6	40.3	23.8	19	16.7	16.7
25.25	334.9	287.5	162.4	184.1	104.6	90.2	97.4	63.9	52	35.4	42.5	23.6	16.5	18.8	16.5
25.5	339.5	292	164.6	188.8	104.4	92.4	97.2	63.7	51.8	35.2	39.9	23.4	18.6	18.6	16.3
25.75	344.4	294.6	169.7	191.4	104.6	95	99.8	66.3	54.4	37.8	42.5	23.6	18.8	16.5	18.8
26	346.9	302	172.3	196.4	104.8	95.2	100	66.5	54.6	38	42.7	23.8	16.7	16.7	16.7
26.25	351.6	304.3	177.1	201.2	104.8	97.6	100	68.9	54.6	38	42.7	23.8	16.7	16.7	16.7
26.5	356.1	308.9	179.3	205.9	104.6	97.4	99.8	68.7	54.4	37.8	42.5	23.6	16.5	16.5	16.5
26.75	360.8	313.6	184.1	210.7	104.6	99.8	102.2	68.7	56.8	37.8	42.5	23.6	16.5	16.5	16.5
27	363	318.2	188.8	215.3	104.4	99.6	102	70.9	56.6	37.6	42.3	23.4	16.3	16.3	16.3
27.25	367.9	320.7	193.8	220.3	104.6	99.8	102.2	73.4	56.8	37.8	44.9	23.6	16.5	16.5	16.5
27.5	370.4	325.7	196.4	225.3	104.8	102.4	102.4	73.6	59.3	40.3	45.1	23.8	16.7	19	16.7

27.75	375.1	330.4	201.2	230.2	104.8	102.4	102.4	76	59.3	40.3	45.1	23.8	16.7	16.7	16.7
28	377.4	332.8	206.1	232.6	104.8	102.4	102.4	78.4	61.7	40.3	45.1	23.8	16.7	16.7	16.7
28.25	382.1	337.5	210.9	237.4	104.8	102.4	102.4	78.4	61.7	40.3	45.1	23.8	16.7	16.7	16.7
28.5	384.4	342.2	215.7	242.2	104.8	102.4	102.4	78.4	61.7	42.7	47.4	23.8	19	16.7	16.7
28.75	386.6	346.7	217.9	244.4	104.6	102.2	104.6	83	61.5	42.5	47.2	23.6	16.5	16.5	16.5
29	389.1	349.3	222.9	249.4	104.8	102.4	104.8	83.2	64.1	42.7	47.4	26.1	16.7	16.7	16.7
29.25	393.8	354	227.8	251.8	107.2	102.4	102.4	83.2	64.1	42.7	47.4	26.1	16.7	16.7	16.7
29.5	396.3	358.9	232.8	256.8	107.4	102.6	102.6	83.4	64.3	42.9	47.6	26.3	16.9	16.9	19.2
29.75	398.6	361.2	235.2	261.6	107.4	102.6	105	85.8	66.7	42.9	50	26.3	19.2	16.9	16.9
30	401.2	366.1	240.2	264.2	110	102.8	105.2	88.4	66.9	45.5	50.2	26.5	19.4	19.4	17.1
30.25	403.5	370.8	245	266.6	110	102.8	102.8	88.4	66.9	45.5	50.2	26.5	17.1	19.4	17.1
30.5	405.8	375.5	247.4	271.4	110	102.8	105.2	88.4	69.3	45.5	50.2	26.5	19.4	17.1	17.1
30.75	410.7	378	252.4	273.9	110.2	103	105.4	88.6	69.5	45.7	50.4	26.7	17.3	17.3	19.6
31	412.8	382.5	254.6	278.5	112.4	102.8	102.8	90.8	71.7	45.5	52.6	26.5	19.4	19.4	19.4
31.25	415.1	384.8	259.4	283.3	114.8	102.8	105.2	90.8	71.7	47.8	52.6	26.5	19.4	19.4	19.4
31.5	417.6	387.4	264.4	285.9	117.4	103	103	91	71.9	48	52.8	26.7	17.3	19.6	19.6
31.75	419.9	389.7	266.8	288.3	117.4	103	103	93.4	74.2	48	52.8	26.7	19.6	19.6	19.6
32	424.6	394.4	271.6	293	119.8	103	105.4	93.4	74.2	50.4	52.8	26.7	17.3	17.3	17.3
32.25	426.9	396.7	273.9	295.4	122.2	103	103	93.4	76.6	50.4	55.2	29.1	17.3	17.3	17.3
32.5	429.2	399	278.7	300.2	124.6	103	105.4	95.8	76.6	50.4	55.2	26.7	19.6	19.6	17.3
32.75	434	401.6	283.7	302.8	127.2	103.2	105.6	96	76.8	50.6	55.4	29.3	19.8	19.8	17.5
33	436.3	403.9	286.1	307.5	129.7	103.2	103.2	96	79.2	50.6	55.4	26.9	19.8	17.5	19.8
33.25	438.9	406.4	291.1	312.5	129.9	103.4	105.8	96.2	79.4	53.2	58	29.5	17.7	17.7	17.7
33.5	441.2	408.7	293.4	314.8	132.3	103.4	103.4	96.2	79.4	53.2	58	29.5	20	17.7	17.7
33.75	446	411.3	298.4	319.8	137.3	103.6	103.6	98.8	82	53.4	60.5	29.7	20.2	17.9	17.9
34	448.3	413.6	303.2	322.1	139.7	103.6	103.6	98.8	82	53.4	60.5	29.7	17.9	20.2	17.9
34.25	450.6	415.9	307.9	326.9	142.1	103.6	103.6	98.8	82	55.8	60.5	29.7	20.2	20.2	20.2
34.5	453.1	418.4	312.9	329.4	144.7	103.8	103.8	99	82.2	56	63.1	29.9	20.4	20.4	18.1
34.75	457.7	420.7	315.2	334.2	147.1	103.8	103.8	99	84.6	56	63.1	29.9	18.1	18.1	20.4
35	459.8	422.9	319.8	336.3	149.3	103.6	103.6	98.8	84.4	55.8	62.9	29.7	17.9	20.2	20.2
35.25	462.1	425.2	324.5	338.7	151.8	103.6	103.6	101.2	86.8	55.8	65.3	29.7	17.9	20.2	20.2
35.5	464.6	427.7	329.4	343.6	156.8	103.8	103.8	101.4	87	58.4	65.5	29.9	18.1	18.1	20.4
35.75	467.1	427.9	334.4	348.5	159.4	104	104	101.6	87.2	58.6	68.1	30.1	18.3	18.3	18.3
36	469.6	430.4	339.3	351.1	162	104.2	104.2	101.8	89.8	61.1	68.3	32.7	18.5	18.5	18.5
36.25	471.9	432.7	344	355.8	164.4	104.2	104.2	101.8	89.8	61.1	68.3	32.7	18.5	18.5	18.5
36.5	474.2	435	346.4	360.5	166.8	104.2	104.2	101.8	92.2	61.1	70.7	32.7	18.5	18.5	18.5
36.75	476.5	435	351.1	362.8	169.3	104.2	104.2	101.8	92.2	63.5	70.7	32.7	18.5	18.5	18.5
37	479	437.5	358.3	367.7	171.9	104.4	106.8	102	92.4	63.7	73.3	32.9	18.7	18.7	18.7
37.25	480.9	437.1	362.6	369.7	173.9	104	106.4	101.6	92	63.3	72.9	32.5	18.3	18.3	18.3
37.5	483.4	439.7	365.2	372.2	178.9	104.2	106.6	101.8	92.2	65.9	73.1	32.7	18.5	18.5	18.5
37.75	483.4	442	369.9	376.9	178.9	104.2	109	106.6	94.6	65.9	75.4	32.7	18.5	18.5	18.5
38	485.5	444.1	374.4	379	183.5	104	108.8	104	94.4	65.7	77.6	32.5	18.3	18.3	18.3
38.25	488	444.3	379.2	381.6	186.2	104.2	109	104.2	94.6	68.3	77.8	32.7	18.5	18.5	18.5
38.5	488	446.6	381.6	386.2	188.6	104.2	111.4	104.2	97	68.3	80.2	35	18.5	18.5	18.5
38.75	490.5	446.8	384.1	386.4	191.2	104.4	111.6	102	97.2	68.5	80.4	35.2	18.7	18.7	18.7
39	490.3	448.9	386.2	390.9	193.4	104.2	113.8	104.2	97	70.7	82.6	35	18.5	18.5	18.5
39.25	492.8	449.1	388.8	391.1	198.4	104.4	114	102	97.2	70.9	82.8	35.2	18.7	18.7	18.7
39.5	494.9	451.2	390.9	395.6	198.2	101.8	116.2	104.2	97	73.1	82.6	35	18.5	18.5	18.5
39.75	495.1	451.4	393.4	395.8	200.8	104.4	116.4	102	99.6	73.3	85.2	35.2	18.7	18.7	18.7
40	497.2	453.5	395.6	400.2	205.5	104.2	118.6	104.2	99.4	73.1	85	35	18.5	18.5	18.5
40.25	499.3	453.3	397.7	402.4	207.7	104	120.8	104	99.2	75.2	87.2	34.8	18.3	18.3	18.3
40.5	499.3	455.6	397.7	404.7	210.1	104	120.8	101.6	99.2	75.2	87.2	34.8	18.3	18.3	18.3
40.75	501.7	458.1	400.2	407.2	212.7	104.2	123.4	104.2	101.8	77.8	89.8	37.4	18.5	18.5	18.5
41	504	458.1	402.6	407.2	215.1	104.2	123.4	104.2	101.8	77.8	89.8	37.4	18.5	18.5	18.5
41.25	506.3	460.4	404.9	409.5	217.5	104.2	125.8	104.2	101.8	77.8	92.2	37.4	18.5	18.5	18.5
41.5	506.3	460.4	407.2	411.9	219.9	104.2	125.8	104.2	101.8	77.8	92.2	37.4	18.5	18.5	18.5
41.75	508.8	462.9	407.4	414.4	222.5	106.8	128.4	104.4	102	80.4	92.4	37.6	18.7	18.7	18.7
42	508.8	462.9	409.7	416.7	224.9	106.8	128.4	104.4	104.4	80.4	94.8	37.6	18.7	18.7	18.7

42.25	508.6	465	411.9	418.8	227.1	106.6	130.7	104.2	104.2	80.2	94.6	39.8	18.5	18.5	18.5
42.5	510.9	465	414.2	418.8	229.6	109	130.7	104.2	104.2	82.6	94.6	39.8	18.5	18.5	18.5
42.75	510.9	467.3	416.5	421.1	232	109	133.1	104.2	106.6	82.6	97	39.8	18.5	18.5	18.5
43	513.2	467.3	416.5	423.5	234.4	109	135.5	104.2	106.6	82.6	97	39.8	18.5	18.5	18.5
43.25	513.4	469.8	419	423.7	237	111.6	135.7	104.4	106.8	85.2	97.2	40	18.7	21	18.7
43.5	515.5	469.6	421.1	425.8	239.2	113.8	137.9	104.2	106.6	85	97	39.8	18.5	18.5	18.5
43.75	515.5	471.9	423.5	428.1	241.6	116.2	140.3	104.2	109	85	97	39.8	18.5	18.5	20.8
44	517.8	471.9	425.8	428.1	244	118.6	140.3	104.2	109	87.4	99.4	42.1	18.5	18.5	18.5
44.25	518	474.4	426	430.6	246.6	121.2	142.9	104.4	111.6	87.6	99.6	42.3	18.7	18.7	18.7
44.5	517.8	474.2	428.1	432.7	248.8	121	145.1	101.8	111.4	87.4	99.4	42.1	18.5	18.5	18.5
44.75	520.1	476.5	430.4	435	251.2	123.4	147.5	101.8	111.4	89.8	99.4	42.1	18.5	18.5	18.5
45	520.1	476.5	430.4	435	253.6	125.8	149.9	101.8	111.4	89.8	99.4	42.1	18.5	18.5	18.5
45.25	520.1	478.8	432.7	437.3	256	128.2	149.9	104.2	113.8	89.8	99.4	42.1	18.5	18.5	18.5
45.5	522.5	481.3	435.2	437.5	258.6	130.9	152.6	102	114	92.4	99.6	42.3	18.7	18.7	18.7
45.75	522.1	480.9	434.8	439.5	260.6	130.5	154.6	104	116	92	101.6	44.3	18.3	18.3	18.3
46	522.3	481.1	437.3	442	263.2	133.1	157.2	101.8	116.2	92.2	99.4	44.5	18.5	18.5	18.5
46.25	524.8	483.6	439.9	444.5	265.8	135.7	159.8	104.4	118.8	92.4	102	44.7	18.7	18.7	18.7
46.5	524.6	483.4	442	444.3	268	137.9	159.6	101.8	118.6	94.6	101.8	44.5	18.5	18.5	18.5
46.75	524.6	485.7	444.3	444.3	270.4	140.3	162	101.8	118.6	94.6	101.8	44.5	18.5	18.5	18.5
47	524.8	488.2	444.5	446.8	273	142.9	164.6	102	121.2	94.8	102	44.7	18.7	18.7	18.7
47.25	524.8	488.2	446.8	446.8	275.3	145.3	167	102	121.2	94.8	102	44.7	18.7	18.7	21
47.5	527.3	490.7	447	449.3	277.9	147.9	169.7	104.6	121.4	95	102.2	44.9	18.9	18.9	21.2
47.75	527.3	490.7	449.3	451.6	277.9	150.3	172.1	102.2	123.8	97.4	102.2	44.9	18.9	18.9	18.9
48	529.4	492.8	451.4	451.4	280.1	152.6	174.3	102	123.6	97.2	102	44.7	18.7	18.7	18.7
48.25	529.4	495.1	453.7	453.7	282.5	155	176.7	102	126	97.2	102	47.1	18.7	18.7	18.7
48.5	529.4	495.1	453.7	453.7	284.9	157.4	179.1	102	126	97.2	102	47.1	18.7	18.7	18.7
48.75	529.4	497.4	456	456	287.3	159.8	181.5	102	128.4	97.2	102	47.1	18.7	18.7	18.7
49	531.9	499.9	458.5	456.2	289.9	162.4	184.1	102.2	128.6	97.4	102.2	47.3	18.9	18.9	18.9
49.25	531.9	499.9	460.8	458.5	292.3	164.8	186.6	104.6	131.1	97.4	102.2	47.3	18.9	18.9	18.9
49.5	531.7	501.9	460.6	458.3	294.4	167	188.8	102	130.9	97.2	102	49.4	18.7	18.7	18.7
49.75	534	501.9	462.9	460.6	294.4	169.5	188.8	102	130.9	99.6	102	47.1	18.7	18.7	18.7
50	534	504.2	462.9	462.9	296.8	171.9	191.2	104.4	133.3	99.6	102	49.4	18.7	18.7	18.7
50.25	533.6	506.1	464.8	462.5	298.8	173.9	195.6	104	132.9	99.2	101.6	49	18.3	18.3	18.3
50.5	533.6	508.4	467.1	462.5	301.2	176.3	195.6	101.6	135.3	99.2	101.6	49	18.3	18.3	18.3
50.75	535.9	508.4	469.4	464.8	303.6	178.7	198	104	137.7	99.2	101.6	49	18.3	18.3	18.3
51	535.7	508.2	469.2	464.6	305.7	180.9	200.2	101.4	137.5	99	101.4	48.8	18.1	18.1	18.1
51.25	535.5	510.3	471.3	466.7	307.9	183.1	202.4	103.6	139.7	98.8	101.2	51	17.9	17.9	17.9
51.5	535.3	510.1	471.1	468.8	310.1	187.8	204.7	101	139.5	98.6	101	50.8	17.7	17.7	17.7
51.75	537.1	512	473	468.4	312.1	189.8	206.7	103	139.1	100.6	100.6	50.4	17.3	17.3	17.3
52	537.1	514.3	473	470.7	312.1	192.2	206.7	103	141.5	100.6	100.6	50.4	17.3	17.3	17.3
52.25	537.3	516.8	473.2	470.9	317	194.8	209.3	103.2	144.1	100.8	100.8	50.6	17.5	17.5	17.5
52.5	537.1	516.6	473	473	316.8	197	213.9	103	143.9	100.6	100.6	50.4	17.3	17.3	17.3
52.75	536.9	518.7	475.1	472.8	319	199.2	213.7	102.8	143.7	100.4	100.4	50.2	17.1	17.1	17.1
53	539.4	521.1	475.3	473	321.5	201.8	216.3	103	146.3	100.6	100.6	52.8	17.3	17.3	17.3
53.25	539.4	521.1	477.6	475.3	323.9	204.3	218.7	103	146.3	100.6	103	52.8	17.3	17.3	17.3
53.5	539.2	523.2	477.4	477.4	326.1	206.5	220.9	102.8	148.5	100.4	102.8	52.6	17.1	17.1	17.1
53.75	539.2	525.5	479.7	477.4	328.4	208.9	223.3	102.8	148.5	100.4	102.8	52.6	17.1	17.1	17.1
54	541.5	525.5	479.7	479.7	328.4	211.3	225.7	102.8	151	100.4	100.4	52.6	17.1	17.1	17.1
54.25	541.3	527.6	481.8	479.5	330.6	213.5	228	102.6	150.8	100.2	102.6	52.4	16.9	16.9	16.9
54.5	541.7	530.3	484.5	482.2	333.4	216.3	230.8	103	151.2	100.6	103	52.8	17.3	17.3	17.3
54.75	541.5	532.4	484.3	482	335.5	218.5	230.6	102.8	153.4	100.4	102.8	52.6	17.1	17.1	17.1
55	544.2	535.1	487	484.7	338.3	221.3	233.4	103.2	153.8	100.8	103.2	55.4	17.5	17.5	17.5
55.25	541.7	534.9	489.1	484.5	338.1	223.5	235.6	105.4	153.6	100.6	103	55.2	17.3	19.6	19.6
55.5	544.2	537.3	491.6	487	340.7	226.1	235.8	105.6	156.2	100.8	103.2	55.4	17.5	17.5	17.5
55.75	544.2	539.6	491.6	487	343	228.6	238.2	105.6	158.6	100.8	103.2	55.4	17.5	17.5	17.5
56	544.4	539.8	494.1	489.5	345.6	231.2	240.8	108.2	158.8	101	105.8	55.6	17.7	17.7	17.7
56.25	544.4	539.8	496.4	489.5	347.9	233.6	243.2	108.2	158.8	101	105.8	55.6	17.7	17.7	17.7
56.5	544.4	542.1	496.4	491.8	350.3	236	245.6	110.6	158.8	101	105.8	55.6	20	20	17.7

56.75	546.5	544.2	498.4	491.6	350.1	238.2	245.4	112.8	161	100.8	105.6	55.4	17.5	17.5	17.5
57	546.5	546.5	498.4	491.6	352.4	240.6	247.8	112.8	161	100.8	105.6	55.4	19.8	19.8	17.5
57.25	546.7	549	500.9	494.1	355	243.2	250.4	115.4	161.2	101	108.2	55.6	20	20	17.7
57.5	546.1	550.7	495.8	495.8	356.7	245	252.2	117.2	163	100.4	107.6	57.4	17.1	17.1	17.1
57.75	546.1	552.9	495.8	495.8	359.1	247.4	254.6	119.6	163	100.4	107.6	55	17.1	17.1	17.1
58	548.4	552.9	493.5	498	361.4	249.8	254.6	122	165.4	100.4	110	57.4	17.1	17.1	17.1
58.25	546.1	555.2	495.8	498	363.8	252.2	257	122	165.4	100.4	110	57.4	17.1	17.1	17.1
58.5	548.4	557.5	495.8	498	366.1	254.6	259.4	124.4	165.4	100.4	110	57.4	17.1	17.1	17.1
58.75	548.6	555.4	500.5	500.5	371	257.2	262	127	168	103	110.2	57.6	17.3	17.3	17.3
59	548.6	557.7	502.8	500.5	373.4	259.6	264.4	129.5	168	100.6	110.2	57.6	17.3	17.3	17.3
59.25	548.4	557.5	502.6	500.3	375.5	261.8	264.2	131.7	167.8	100.4	112.4	57.4	17.1	17.1	17.1
59.5	548.4	557.5	504.9	502.6	377.8	264.2	266.6	134.1	167.8	100.4	112.4	57.4	17.1	17.1	17.1
59.75	548.4	555.2	504.9	504.9	377.8	266.6	269	136.5	170.3	102.8	112.4	59.7	17.1	17.1	17.1

Test 7

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	72.6	53.6	77.4	51.2	44.1	41.7	27.5	25.1	18	20.4	18	22.8	18	18	18
0.5	87	58.3	77.4	53.6	46.4	41.7	29.9	27.5	18	20.4	18	22.8	18	18	18
0.75	87	60.7	79.8	56	48.8	44.1	32.2	29.9	20.4	22.8	18	25.1	18	18	18
1	87.2	63.3	80	58.5	51.4	46.6	34.8	30.1	20.6	23	18.2	25.3	18.2	18.2	18.2
1.25	89.6	63.3	80	58.5	53.8	49	37.2	30.1	20.6	23	18.2	25.3	18.2	18.2	18.2
1.5	92	65.7	80	60.9	53.8	49	37.2	32.4	20.6	23	18.2	27.7	18.2	18.2	18.2
1.75	92	65.7	82.4	60.9	56.2	51.4	39.5	32.4	23	25.3	18.2	27.7	18.2	18.2	18.2
2	94.4	68.1	82.4	63.3	58.5	53.8	41.9	34.8	23	27.7	18.2	30.1	18.2	18.2	18.2
2.25	94.6	68.3	82.6	65.9	58.7	54	42.1	35	23.2	27.9	18.4	30.3	18.4	18.4	18.4
2.5	94.8	70.9	85.2	66.1	61.3	56.6	44.7	37.6	23.4	28.1	18.6	30.5	18.6	18.6	18.6
2.75	95	71.1	85.4	66.3	61.5	56.8	44.9	40.1	23.6	30.7	18.8	30.7	18.8	18.8	18.8
3	97.2	70.9	85.2	68.5	63.7	58.9	47	39.9	25.7	30.5	18.6	32.8	18.6	18.6	18.6
3.25	97.2	73.2	85.2	68.5	63.7	58.9	49.4	39.9	25.7	30.5	18.6	32.8	21	21	18.6
3.5	97	73	85	70.7	65.9	61.1	49.2	42.1	27.9	32.6	20.8	35	20.8	20.8	18.4
3.75	99.4	73	85	70.7	65.9	61.1	49.2	42.1	27.9	32.6	20.8	35	20.8	20.8	18.4
4	99.6	75.6	85.2	70.9	66.1	61.3	51.8	44.7	28.1	32.8	21	35.2	21	21	18.6
4.25	99.8	75.8	87.8	73.4	68.7	63.9	52	44.9	28.3	35.4	21.2	37.8	21.2	21.2	18.8
4.5	99.8	75.8	87.8	73.4	68.7	63.9	52	44.9	30.7	35.4	21.2	37.8	21.2	21.2	18.8
4.75	102.2	78.2	87.8	73.4	68.7	66.3	54.4	47.2	30.7	37.8	23.6	37.8	21.2	21.2	18.8
5	104.4	78	87.6	75.6	70.9	66.1	54.2	47	32.8	37.6	23.4	39.9	21	21	18.6
5.25	107	80.6	87.8	75.8	71.1	68.7	56.8	49.6	33	37.8	23.6	40.1	21.2	23.6	18.8
5.5	109.2	80.4	90	75.6	73.2	68.5	56.6	49.4	32.8	39.9	23.4	39.9	23.4	23.4	18.6
5.75	109.4	80.6	90.2	78.2	71.1	68.7	56.8	49.6	35.4	40.1	23.6	40.1	23.6	23.6	18.8
6	111.8	80.6	92.6	78.2	73.4	71.1	59.1	52	35.4	40.1	23.6	42.5	23.6	23.6	18.8
6.25	114	80.4	92.4	78	73.2	70.9	58.9	51.8	35.2	42.3	25.7	42.3	23.4	23.4	18.6
6.5	116.6	83	95	80.6	75.8	71.1	61.5	52	37.8	42.5	25.9	42.5	23.6	23.6	18.8
6.75	121.4	83	97.4	80.6	75.8	73.4	61.5	52	37.8	42.5	25.9	42.5	23.6	23.6	18.8
7	128.7	85.4	99.8	83	75.8	73.4	61.5	54.4	37.8	42.5	25.9	42.5	23.6	25.9	18.8
7.25	133.7	85.6	100	83.2	78.4	76	64.1	54.6	40.3	45.1	26.1	45.1	26.1	26.1	19
7.5	143.1	87.8	102.2	83	78.2	75.8	63.9	54.4	40.1	44.9	28.3	44.9	25.9	25.9	18.8
7.75	150.6	88	102.4	85.6	80.8	78.4	64.1	54.6	40.3	45.1	28.5	45.1	26.1	26.1	19
8	155.4	90.4	104.8	88	80.8	80.8	66.5	54.6	42.7	47.4	28.5	47.4	26.1	26.1	19
8.25	162.6	90.4	107.2	90.4	83.2	80.8	66.5	57	42.7	47.4	28.5	47.4	26.1	26.1	19
8.5	167.4	92.8	109.6	90.4	83.2	83.2	68.9	57	42.7	47.4	28.5	47.4	28.5	26.1	19
8.75	172.1	95	114.2	92.6	85.4	85.4	68.7	56.8	42.5	47.2	30.7	49.6	28.3	25.9	18.8
9	176.9	95	116.6	92.6	87.8	87.8	71.1	59.1	44.9	49.6	30.7	49.6	28.3	25.9	18.8
9.25	181.9	100	119.2	97.6	90.4	90.4	73.6	59.3	45.1	49.8	30.9	49.8	28.5	28.5	19
9.5	186.6	99.8	123.8	99.8	92.6	92.6	73.4	59.1	47.2	49.6	33	52	28.3	28.3	18.8
9.75	191.6	102.4	128.9	100	95.2	95.2	76	61.7	47.4	49.8	33.2	52.2	28.5	28.5	21.4
10	196.2	102.2	131.1	99.8	99.8	97.4	75.8	61.5	47.2	52	33	52	28.3	28.3	18.8
10.25	203.5	104.6	135.9	99.8	99.8	99.8	78.2	61.5	49.6	52	33	54.4	30.7	28.3	21.2
10.5	206.1	104.8	138.5	100	102.4	100	78.4	61.7	49.8	52.2	33.2	54.6	30.9	28.5	21.4
10.75	213.1	107	145.5	102.2	102.2	99.8	80.6	63.9	52	52	35.4	54.4	30.7	28.3	21.2
11	218.3	107.4	148.3	102.6	102.6	102.6	81	64.3	52.4	54.8	35.8	57.2	31.1	31.1	21.6
11.25	222.9	109.6	153	102.4	102.4	102.4	83.2	64.1	52.2	54.6	35.6	59.3	30.9	30.9	21.4
11.5	230.2	112	157.8	104.8	102.4	102.4	85.6	66.5	52.2	57	35.6	59.3	33.2	30.9	21.4
11.75	234.8	111.8	162.4	104.6	99.8	102.2	85.4	68.7	54.4	56.8	37.8	61.5	33	30.7	21.2
12	242	114.2	167.2	107	99.8	102.2	87.8	68.7	54.4	59.1	37.8	61.5	33	30.7	21.2
12.25	249.2	119	174.5	107	102.2	102.2	87.8	71.1	56.8	59.1	37.8	63.9	33	33	21.2
12.5	256.6	121.6	179.5	109.6	102.4	102.4	90.4	73.6	57	59.3	40.3	64.1	35.6	33.2	21.4
12.75	263.8	124	186.8	112	102.4	102.4	92.8	73.6	59.3	61.7	40.3	66.5	35.6	33.2	23.8
13	273.5	129.1	194.2	117	105	102.6	93	76.2	59.5	61.9	40.5	66.7	35.8	33.4	24

13.25	283.1	131.5	201.4	119.4	105	105	95.4	76.2	61.9	64.3	40.5	69.1	35.8	35.8	24
13.5	292.4	136.1	208.5	121.6	107.2	104.8	97.6	78.4	61.7	64.1	42.7	68.9	35.6	35.6	23.8
13.75	302.2	141.1	215.9	126.6	109.8	107.4	97.8	78.6	61.9	66.7	42.9	69.1	38.2	35.8	24
14	314	145.9	225.5	129.1	112.2	107.4	100.2	81	64.3	66.7	42.9	71.5	38.2	35.8	24
14.25	330.6	153.2	232.8	133.9	114.6	109.8	100.2	81	66.7	69.1	42.9	71.5	38.2	38.2	24
14.5	345	158.2	240.2	138.9	117.2	112.4	100.4	83.6	66.9	71.7	45.5	71.7	38.4	38.4	24.2
14.75	356.5	165.2	249.6	143.5	119.4	117	100.2	83.4	69.1	71.5	45.3	73.8	40.5	38.2	26.3
15	366.1	170.3	257	151	124.4	119.6	100.4	86	69.3	74	45.5	74	40.7	38.4	26.5
15.25	375.5	177.5	264.2	155.8	129.3	122	102.8	86	71.7	74	47.8	74	43.1	38.4	26.5
15.5	384.8	182.3	271.4	160.6	131.7	126.8	100.4	88.4	71.7	76.4	47.8	76.4	43.1	40.7	26.5
15.75	391.8	189.6	278.5	167.8	136.5	131.7	102.8	90.8	74	76.4	47.8	76.4	43.1	40.7	26.5
16	398.8	196.8	283.3	172.7	141.3	136.5	102.8	90.8	76.4	78.8	47.8	78.8	43.1	40.7	28.9
16.25	405.8	201.6	290.5	179.9	146.1	141.3	102.8	93.2	76.4	81.2	50.2	78.8	43.1	43.1	28.9
16.5	413	206.7	295.4	184.9	153.6	146.3	103	93.4	79	83.8	50.4	79	45.7	43.3	29.1
16.75	419.9	213.9	302.6	192.2	158.4	148.7	103	95.8	79	83.8	52.8	81.4	45.7	43.3	29.1
17	424.4	218.5	307.1	196.8	163	155.8	102.8	95.6	81.2	86	52.6	81.2	45.5	43.1	28.9
17.25	431.3	223.3	314.2	201.6	167.8	158.2	105.2	98	83.6	88.4	52.6	83.6	45.5	45.5	28.9
17.5	435.9	230.6	319	208.9	172.7	165.4	105.2	98	83.6	88.4	55	83.6	47.8	45.5	31.3
17.75	443.1	235.6	326.3	213.9	177.7	170.5	107.8	98.2	86.2	91	55.2	83.8	48	45.7	31.5
18	449.8	240.2	330.8	218.5	184.7	175.1	110	98	86	90.8	55	86	50.2	45.5	31.3
18.25	456.7	245	335.5	225.7	189.6	179.9	112.4	100.4	88.4	93.2	57.4	88.4	50.2	45.5	33.6
18.5	461.3	249.8	342.6	230.6	194.4	184.7	114.8	100.4	90.8	95.6	59.7	88.4	50.2	47.8	33.6
18.75	468.2	254.6	347.3	235.4	199.2	189.6	117.2	102.8	93.2	95.6	59.7	90.8	50.2	47.8	33.6
19	475.3	262	352.2	242.8	206.7	194.6	119.8	100.6	93.4	98.2	62.3	91	52.8	50.4	33.8
19.25	479.9	266.8	359.3	247.6	209.1	199.4	122.2	100.6	95.8	98.2	62.3	93.4	52.8	50.4	33.8
19.5	484.5	271.6	364	252.4	216.3	204.3	127	103	95.8	98.2	62.3	93.4	52.8	50.4	33.8
19.75	491.4	276.3	371	259.6	221.1	209.1	129.5	103	98.2	100.6	64.7	95.8	55.2	52.8	36.2
20	496	281.1	375.7	264.4	225.9	213.9	134.3	103	100.6	100.6	67.1	98.2	55.2	52.8	36.2
20.25	500.3	285.7	380.2	271.4	233	218.5	136.5	102.8	100.4	100.4	66.9	98	55	52.6	36
20.5	505.1	290.7	387.4	276.3	238	225.9	141.5	105.4	100.6	100.6	69.5	100.6	55.2	52.8	36.2
20.75	507.6	295.6	392.2	281.3	243	231	146.5	105.6	100.8	100.8	69.7	100.8	57.8	55.4	38.8
21	512.2	300.4	396.9	286.1	247.8	235.8	151.4	105.6	100.8	100.8	72.1	103.2	57.8	55.4	38.8
21.25	516.8	305.1	399.2	293.2	252.6	240.6	153.8	108	103.2	103.2	74.4	103.2	60.1	55.4	38.8
21.5	521.3	309.9	403.9	298	257.4	245.4	158.6	108	103.2	103.2	74.4	105.6	60.1	57.8	38.8
21.75	523.4	312.1	406	304.9	262	252.4	163.2	107.8	100.6	100.6	74.2	105.4	59.9	57.6	38.6
22	528.2	317	413.2	309.9	267	257.4	168.2	110.4	103.2	103.2	76.8	108	62.5	57.8	38.8
22.25	532.8	321.7	415.5	314.6	271.8	262.2	173.1	110.4	103.2	100.8	76.8	108	62.5	60.1	41.1
22.5	534.9	328.6	419.9	319.2	276.3	269.2	177.7	112.6	103	100.6	79	110.2	62.3	59.9	40.9
22.75	539.4	331	424.6	326.3	283.5	273.9	182.5	115	103	103	79	110.2	64.7	59.9	40.9
23	543.8	335.5	429	330.8	285.7	278.5	187.2	114.8	102.8	102.8	81.2	110	64.5	62.1	40.7
23.25	546.3	340.5	433.8	335.7	293	283.5	192.2	117.4	103	103	83.8	112.6	64.7	62.3	43.3
23.5	550.9	345.2	436.1	340.5	297.8	290.7	197	119.8	103	103	83.8	112.6	67.1	64.7	43.3
23.75	553.1	349.9	440.8	347.5	302.6	295.4	199.4	122.2	103	103	86.2	115	67.1	64.7	43.3
24	553.1	354.6	443.1	352.2	307.3	300.2	206.7	122.2	103	103	86.2	115	69.5	64.7	43.3
24.25	552.9	359.1	447.5	356.7	311.9	304.7	208.9	126.8	102.8	102.8	86	117.2	69.3	66.9	43.1
24.5	553.1	361.6	452.3	361.6	314.4	312.1	213.9	127	103	103	88.6	117.4	69.5	67.1	43.3
24.75	555.4	366.3	454.6	366.3	319.2	314.4	218.7	129.5	103	103	88.6	117.4	71.9	67.1	45.7
25	557.7	371	456.9	371	321.5	321.5	223.5	131.9	103	103	91	119.8	71.9	69.5	45.7
25.25	560.2	375.9	461.7	375.9	324.1	324.1	226.1	134.5	103.2	103.2	91.2	120	74.4	69.7	45.9
25.5	557.9	380.6	464	380.6	326.5	328.8	231	136.9	103.2	105.6	91.2	120	74.4	72.1	45.9
25.75	557.9	380.6	464	382.9	328.8	331.2	235.8	139.3	103.2	105.6	93.6	122.4	74.4	72.1	45.9
26	557.9	382.9	466.3	385.2	331.2	335.9	238.2	141.7	103.2	105.6	93.6	122.4	76.8	72.1	45.9
26.25	557.9	385.2	468.6	387.6	333.6	338.3	243	146.5	103.2	108	93.6	124.8	76.8	72.1	48.2
26.5	557.9	385.2	470.9	389.9	335.9	340.7	245.4	148.9	105.6	108	93.6	124.8	76.8	72.1	48.2
26.75	557.9	387.6	470.9	389.9	335.9	345.4	250.2	151.4	105.6	110.4	96	124.8	79.2	74.4	48.2
27	560.2	389.9	473.2	392.2	340.7	347.7	252.6	153.8	105.6	110.4	96	124.8	79.2	74.4	48.2
27.25	560.2	392.2	477.8	396.9	343	352.4	255	156.2	105.6	112.8	98.4	127.2	79.2	76.8	48.2
27.5	562.5	394.6	480.1	399.2	345.4	354.8	259.8	158.6	105.6	115.2	98.4	127.2	79.2	76.8	48.2

27.75	562.7	397.1	482.6	401.8	347.9	359.7	262.4	161.2	108.2	117.8	98.6	129.9	81.8	77	50.8
28	562.7	399.4	484.9	404.1	350.3	362	267.2	163.6	108.2	120.2	98.6	127.4	81.8	77	50.8
28.25	562.7	399.4	484.9	406.4	352.6	362	269.6	166	110.6	122.6	98.6	129.9	81.8	79.4	50.8
28.5	562.5	401.6	487	410.9	357.1	361.8	274.1	168.2	110.4	124.8	100.8	129.7	84	79.2	50.6
28.75	562.7	404.1	487.2	413.4	359.7	362	276.7	173.3	113	127.4	101	129.9	84.2	79.4	50.8
29	562.7	404.1	487.2	415.7	359.7	364.4	279.1	173.3	115.4	129.9	101	129.9	84.2	81.8	50.8
29.25	562.7	406.4	489.5	418	362	366.7	283.9	178.1	117.8	129.9	101	132.3	86.6	81.8	53.2
29.5	562.7	408.7	489.5	420.3	366.7	369.1	286.3	180.5	120.2	132.3	101	132.3	86.6	81.8	53.2
29.75	562.5	408.5	491.6	422.5	368.9	371.2	288.5	182.7	120	136.9	100.8	132.1	86.4	81.6	53
30	562.5	410.9	491.6	424.8	371.2	375.9	290.9	185.2	122.4	139.3	100.8	132.1	88.8	84	53
30.25	564.8	410.9	493.9	427.1	371.2	378.2	295.6	187.6	124.8	141.7	100.8	134.5	88.8	84	53
30.5	565	413.4	494.1	431.9	376.1	380.8	298.2	190.2	127.4	144.3	101	134.7	89	84.2	53.2
30.75	565	415.7	496.4	431.9	378.4	383.1	300.6	192.6	129.9	146.7	103.4	134.7	89	86.6	55.6
31	565.2	418.2	498.8	434.4	381	385.6	303.2	195.2	132.5	149.3	101.2	137.3	89.2	86.8	55.8
31.25	567.5	418.2	498.8	436.7	383.3	388	307.9	197.6	134.9	151.8	103.6	137.3	91.6	86.8	55.8
31.5	567.3	420.3	498.6	438.9	385.4	392.4	310.1	199.8	137.1	154	101	137.1	91.4	86.6	55.6
31.75	567.5	422.9	501.1	441.4	388	395	312.7	202.4	139.7	156.6	101.2	137.3	91.6	89.2	55.8
32	567.1	424.8	503	443.3	389.9	396.9	314.6	204.5	141.7	158.6	100.8	139.3	91.2	88.8	55.4
32.25	569.3	424.8	503	445.6	392.2	399.2	317	206.9	144.1	161	100.8	139.3	93.6	88.8	55.4
32.5	569.3	427.1	505.3	447.9	394.6	403.9	319.4	211.7	148.9	163.4	100.8	139.3	93.6	88.8	55.4
32.75	569.3	429.4	507.6	450.2	396.9	406.2	324.1	211.7	151.4	165.8	100.8	139.3	93.6	91.2	57.8
33	569.3	429.4	507.6	452.5	399.2	410.9	326.5	214.1	153.8	168.2	103.2	139.3	93.6	91.2	57.8
33.25	569.5	431.9	510.1	455	399.4	413.4	329	216.7	158.8	170.9	101	141.9	96.2	91.4	58
33.5	567.3	434.2	510.1	455	401.8	415.7	331.4	219.1	161.2	170.9	101	141.9	96.2	91.4	58
33.75	567.3	434.2	510.1	457.3	404.1	420.3	333.8	223.9	163.6	175.7	103.4	141.9	96.2	91.4	58
34	569.5	436.5	512.4	459.6	406.4	422.7	336.1	223.9	166	178.1	101	141.9	96.2	91.4	58
34.25	567.5	436.7	514.9	459.8	408.9	425.2	338.7	226.5	168.7	178.3	101.2	142.1	96.4	94	60.5
34.5	569.7	439.1	514.9	462.1	411.3	427.5	341.1	229	171.1	180.7	103.6	144.5	96.4	94	60.5
34.75	569.9	441.6	517.4	462.3	411.5	430	346	231.6	176.1	183.3	101.4	144.7	99	94.2	60.7
35	569.9	443.9	519.7	464.6	413.8	434.6	348.3	231.6	178.5	185.8	101.4	144.7	99	94.2	60.7
35.25	569.5	443.5	519.3	466.5	415.7	436.5	350.3	236	180.5	187.8	101	144.3	98.6	93.8	60.3
35.5	569.5	445.8	521.5	466.5	418	436.5	355	236	182.9	190.2	101	146.7	98.6	93.8	60.3
35.75	569.5	448.1	521.5	468.8	420.3	438.9	357.3	238.4	185.4	192.6	101	146.7	98.6	96.2	60.3
36	569.5	448.1	521.5	468.8	422.7	443.5	359.7	240.8	190.2	195	101	146.7	98.6	96.2	62.7
36.25	569.5	450.4	523.8	471.1	425	443.5	364.4	243.2	192.6	197.4	101	146.7	98.6	96.2	62.7
36.5	569.5	452.7	523.8	471.1	425	445.8	366.7	243.2	195	199.8	101	146.7	98.6	96.2	62.7
36.75	569.7	452.9	526.3	471.3	427.5	448.3	366.9	248.2	197.6	200	101.2	149.3	101.2	96.4	62.9
37	569.7	455.2	526.3	473.6	429.8	450.6	366.9	250.6	200	202.4	101.2	149.3	98.8	96.4	62.9
37.25	569.5	457.3	526.1	473.4	429.6	450.4	369.1	250.4	202.2	204.7	101	149.1	101	96.2	62.7
37.5	569.5	457.3	526.1	473.4	431.9	452.7	369.1	252.8	204.7	207.1	103.4	149.1	101	96.2	62.7
37.75	569.7	459.8	528.6	475.9	434.4	452.9	369.3	253	207.3	207.3	101.2	151.8	101.2	96.4	62.9
38	569.7	459.8	528.6	475.9	434.4	455.2	369.3	257.8	209.7	209.7	101.2	151.8	101.2	98.8	62.9
38.25	569.7	462.1	530.9	475.9	436.7	455.2	371.6	257.8	212.1	212.1	103.6	151.8	101.2	98.8	65.3
38.5	569.5	461.9	530.7	475.7	436.5	457.3	373.8	260	214.3	214.3	103.4	151.6	101	98.6	65.1
38.75	569.7	464.4	530.9	475.9	439.1	459.8	374	262.6	216.9	216.9	103.6	154.2	101.2	98.8	65.3
39	569.5	464.2	530.7	478	441.2	459.6	376.1	264.8	219.1	216.7	101	154	101	98.6	65.1
39.25	569.7	466.7	530.9	478.2	443.7	459.8	378.6	265	221.7	219.3	103.6	154.2	101.2	98.8	65.3
39.5	569.3	468.6	532.8	477.8	443.3	461.7	378.2	267	223.7	221.3	103.2	153.8	100.8	98.4	64.9
39.75	569.5	468.8	533	480.3	445.8	461.9	380.8	269.6	226.3	223.9	103.4	154	101	98.6	65.1
40	569.7	471.3	533.2	480.5	446	464.4	383.3	269.8	229	226.5	103.6	156.6	101.2	98.8	67.7
40.25	569.5	471.1	535.3	480.3	448.1	464.2	383.1	272	231.2	226.3	103.4	156.4	101	98.6	67.5
40.5	571.8	473.4	535.3	482.6	450.4	466.5	387.8	274.3	233.6	228.8	103.4	156.4	101	101	67.5
40.75	571.8	475.7	535.3	482.6	452.7	466.5	387.8	276.7	236	231.2	103.4	158.8	101	101	67.5
41	571.6	477.8	537.3	482.4	452.5	468.6	389.9	278.9	238.2	233.4	103.2	158.6	100.8	100.8	67.3
41.25	571.6	477.8	537.3	484.7	454.8	468.6	392.2	278.9	240.6	233.4	103.2	158.6	100.8	100.8	67.3
41.5	571.8	480.3	537.5	484.9	457.3	471.1	392.4	281.5	243.2	236	103.4	158.8	101	101	67.5
41.75	571.6	482.4	539.6	487	459.4	470.9	394.6	283.7	243	238.2	103.2	158.6	100.8	98.4	67.3
42	571.8	484.9	539.8	487.2	461.9	471.1	397.1	283.9	245.6	240.8	105.8	161.2	101	101	69.9

42.25	572	487.4	540	489.7	464.4	473.6	399.6	286.5	248.2	241	106	161.4	103.6	101.2	67.7
42.5	572.2	489.9	542.5	489.9	464.6	476.1	402.2	286.7	250.8	243.6	106.2	161.6	103.8	101.4	70.3
42.75	572.2	492.2	542.5	489.9	469.2	476.1	404.5	289.1	253.2	246	108.6	164	101.4	101.4	70.3
43	572.2	494.5	542.5	492.2	471.5	476.1	404.5	291.5	253.2	246	108.6	164	101.4	101.4	70.3
43.25	572.4	494.7	545	492.4	471.7	478.6	407	294	255.8	248.6	111.2	164.2	104	101.6	70.5
43.5	572.4	497	545	492.4	476.3	480.9	409.3	296.4	258.2	251	111.2	164.2	104	101.6	70.5
43.75	572.2	499	544.8	494.5	476.1	480.7	409.1	296.2	258	253.2	111	166.4	103.8	101.4	70.3
44	572.4	501.5	547.3	494.7	478.6	480.9	411.7	298.8	263	253.4	113.6	166.6	104	101.6	70.5
44.25	572.4	501.5	547.3	494.7	480.9	480.9	414	301.2	263	255.8	113.6	166.6	104	101.6	72.9
44.5	572.6	504	549.8	497.2	483.4	481.1	416.5	301.4	265.6	256	116.2	169.3	104.2	101.8	73.1
44.75	572.4	503.8	549.6	497	485.5	483.2	416.3	303.6	267.8	258.2	116	166.6	104	101.6	72.9
45	572.6	506.3	549.8	497.2	485.7	483.4	418.8	306.1	270.4	260.8	118.6	169.3	104.2	104.2	73.1
45.25	572.6	506.3	549.8	499.5	488	483.4	421.1	308.5	270.4	263.2	121	169.3	104.2	101.8	73.1
45.5	572.6	508.6	549.8	499.5	488	485.7	421.1	308.5	272.8	263.2	121	169.3	104.2	101.8	73.1
45.75	572.6	508.6	552.1	501.7	490.3	485.7	423.5	310.9	275.1	265.6	121	171.7	104.2	101.8	73.1
46	572.6	508.6	552.1	501.7	490.3	485.7	425.8	313.3	277.5	268	123.4	171.7	104.2	104.2	73.1
46.25	572.8	511.1	552.3	501.9	490.5	488.2	426	315.8	277.7	268.2	126	171.9	104.4	104.4	73.3
46.5	572.8	511.1	552.3	501.9	492.8	488.2	428.3	315.8	280.1	270.6	126	171.9	106.8	104.4	75.6
46.75	572.8	511.1	554.5	504.2	492.8	490.5	428.3	318.2	282.5	273	128.4	171.9	106.8	104.4	75.6
47	572.8	513.4	554.5	504.2	495.1	490.5	430.6	320.6	284.9	273	128.4	174.3	106.8	104.4	75.6
47.25	573	513.6	554.7	504.4	495.3	493	433.1	320.8	285.1	275.5	131.1	174.5	107	104.6	75.9
47.5	573	515.9	554.7	506.7	497.6	493	433.1	323.1	287.5	277.9	131.1	174.5	107	104.6	75.9
47.75	573	515.9	554.7	506.7	497.6	495.3	435.4	325.5	287.5	277.9	133.5	174.5	107	104.6	75.9
48	572.6	515.5	554.3	506.3	499.5	494.9	435	327.5	289.5	279.9	135.5	176.5	106.6	104.2	75.4
48.25	572.6	517.8	554.3	508.6	499.5	497.2	435	327.5	291.9	282.3	137.9	176.5	106.6	104.2	75.4
48.5	572.6	517.8	556.6	508.6	499.5	497.2	437.3	329.8	294.2	282.3	137.9	176.5	109	104.2	77.8
48.75	572.8	518	556.8	508.8	501.9	499.7	439.9	332.4	294.4	284.9	140.5	176.7	109.2	104.4	78
49	572.8	520.3	556.8	508.8	501.9	499.7	442.2	334.8	296.8	284.9	140.5	179.1	109.2	104.4	78
49.25	573	520.5	557	511.3	504.4	499.9	442.4	335	297	287.5	143.1	179.3	109.4	107	78.2
49.5	572.8	522.5	556.8	511.1	504.2	501.9	444.5	339.5	299.2	287.3	145.3	179.1	109.2	106.8	78
49.75	572.8	522.5	559.1	511.1	506.5	501.9	444.5	339.5	301.6	289.7	147.7	179.1	109.2	106.8	78
50	572.8	524.8	559.1	511.1	506.5	501.9	446.8	341.9	304	292.1	147.7	181.5	109.2	106.8	78
50.25	572.8	524.8	559.1	511.1	508.8	504.2	446.8	344.2	304	292.1	150.1	181.5	109.2	106.8	78
50.5	573	525	559.3	511.3	509	504.4	449.3	344.4	306.5	294.6	152.8	181.7	111.8	107	78.2
50.75	573	525	559.3	513.6	509	504.4	451.6	346.8	308.9	294.6	152.8	181.7	109.4	107	78.2
51	573	525	559.3	513.6	509	506.7	451.6	349.1	308.9	297	155.2	184.1	111.8	107	80.6
51.25	572.8	527.1	559.1	513.4	511.1	506.5	453.7	348.9	311.1	299.2	157.4	183.9	111.6	106.8	80.4
51.5	573	527.3	559.3	513.6	511.3	506.7	453.9	353.8	313.7	299.4	157.6	184.1	111.8	107	80.6
51.75	572.8	527.1	559.1	515.7	511.1	506.5	453.7	353.6	313.5	301.6	159.8	183.9	111.6	106.8	80.4
52	573	527.3	559.3	515.9	513.6	506.7	456.2	353.8	316	304.2	160	186.6	111.8	109.4	80.6
52.25	573	529.6	559.3	515.9	513.6	506.7	456.2	358.5	316	304.2	162.4	186.6	111.8	109.4	80.6
52.5	570.7	529.6	559.3	515.9	515.9	509	456.2	358.5	318.4	306.5	164.8	186.6	114.2	109.4	80.6
52.75	570.5	529.4	559.1	515.7	515.7	508.8	456	360.7	320.6	306.3	164.6	186.4	114	109.2	80.4
53	570.5	531.7	559.1	515.7	515.7	508.8	458.3	363	320.6	308.7	167	188.8	114	109.2	80.4
53.25	570.7	529.6	559.3	515.9	515.9	509	460.8	360.9	323.1	311.3	169.7	189	114.2	109.4	80.6
53.5	570.7	529.6	559.3	518.2	515.9	509	460.8	363.2	325.5	311.3	169.7	189	114.2	111.8	83
53.75	570.7	529.6	559.3	518.2	515.9	509	460.8	363.2	325.5	313.7	172.1	189	114.2	111.8	83
54	570.7	529.6	559.3	518.2	515.9	509	463.1	365.6	327.9	313.7	174.5	189	116.6	111.8	83
54.25	568.5	529.6	559.3	518.2	515.9	509	463.1	367.9	327.9	316	174.5	191.4	116.6	111.8	83
54.5	570.7	529.6	559.3	518.2	515.9	509	463.1	367.9	330.2	316	176.9	191.4	116.6	111.8	83
54.75	570.9	532.1	559.5	518.4	516.1	509.2	463.3	370.5	332.8	318.6	177.1	191.6	116.8	112	83.2
55	568.5	531.9	559.3	518.2	518.2	509	465.4	372.6	332.6	318.4	179.3	193.8	119	111.8	83
55.25	568.5	531.9	559.3	520.5	518.2	509	465.4	372.6	332.6	320.8	181.7	193.8	116.6	111.8	83
55.5	568.7	532.1	559.5	520.7	518.4	509.2	465.6	375.2	335.2	321	181.9	194	119.2	114.4	83.2
55.75	568.5	534.2	559.3	520.5	520.5	509	465.4	377.3	337.3	323.1	184.1	193.8	119	114.2	83
56	568.5	534.2	559.3	520.5	520.5	509	465.4	377.3	337.3	323.1	186.6	193.8	119	114.2	83
56.25	568.5	534.2	559.3	520.5	520.5	511.3	467.7	382	339.7	325.5	186.6	196.2	119	114.2	85.4
56.5	568.5	534.2	559.3	520.5	522.7	511.3	467.7	382	342.1	327.9	189	196.2	121.4	114.2	85.4

56.75	568.5	534.2	559.3	520.5	522.7	509	467.7	386.6	342.1	327.9	189	196.2	119	114.2	85.4
57	568.7	536.7	559.5	520.7	522.9	511.5	467.9	389.2	344.6	328.1	191.6	198.8	121.6	114.4	85.6
57.25	568.5	536.5	559.3	520.5	522.7	511.3	470	389	344.4	330.2	193.8	198.6	121.4	116.6	85.4
57.5	566.2	536.5	559.3	520.5	522.7	511.3	470	389	346.8	332.6	193.8	198.6	121.4	116.6	85.4
57.75	568.5	536.5	559.3	522.7	522.7	511.3	470	393.6	349.1	332.6	196.2	198.6	121.4	116.6	85.4
58	568.7	536.7	559.5	522.9	525.2	511.5	470.2	393.8	351.7	335.2	198.8	198.8	121.6	116.8	85.6
58.25	568.7	536.7	561.8	522.9	525.2	511.5	472.5	396.2	351.7	335.2	198.8	201.2	124	116.8	85.6
58.5	566.2	536.5	559.3	522.7	525	511.3	472.3	398.3	351.5	337.3	201	201	123.8	116.6	85.4
58.75	566.2	536.5	561.6	522.7	525	511.3	472.3	398.3	353.8	337.3	201	201	123.8	116.6	85.4
59	566.2	536.5	559.3	522.7	527.3	511.3	472.3	400.6	356.2	339.7	203.4	201	123.8	119	87.8
59.25	566.2	538.7	559.3	522.7	527.3	513.6	472.3	400.6	358.5	339.7	205.9	203.4	123.8	119	87.8
59.5	566	538.5	561.4	522.5	527.1	513.4	472.1	402.8	358.3	341.9	205.7	203.2	126	118.8	87.6
59.75	565.8	538.3	558.9	522.3	526.9	513.2	474.2	404.9	360.5	344	207.9	203	125.8	118.6	87.4
60	565.8	538.3	561.2	524.6	526.9	513.2	474.2	404.9	360.5	344	207.9	203	125.8	118.6	87.4
60.25	565.8	538.3	558.9	524.6	526.9	513.2	474.2	407.2	362.8	346.4	210.3	205.5	125.8	118.6	87.4
60.5	566	538.5	561.4	524.8	529.4	513.4	476.7	409.7	363	346.6	210.5	205.7	128.4	121.2	87.6
60.75	565.8	538.3	561.2	524.6	529.2	515.5	476.5	409.5	365.2	348.7	212.7	205.5	128.2	121	87.4
61	563.5	538.3	558.9	524.6	529.2	515.5	476.5	414.2	367.5	348.7	215.1	207.9	128.2	121	87.4
61.25	559.1	538.5	556.8	524.8	529.4	515.7	476.7	414.4	367.7	351.3	215.3	208.1	128.4	121.2	87.6
61.5	559.3	538.7	557	525	529.6	513.6	476.9	419.2	370.3	353.8	217.9	208.3	128.6	121.4	87.8
61.75	561.4	538.5	554.5	524.8	529.4	511.1	479	416.7	370.1	353.6	217.7	208.1	128.4	123.6	90
62	561.6	538.7	554.7	525	529.6	511.3	479.2	416.9	370.3	356.2	220.3	208.3	131.1	123.8	90.2
62.25	561.6	538.7	554.7	525	529.6	509	479.2	419.2	372.6	356.2	220.3	210.7	131.1	123.8	87.8
62.5	563.9	538.7	557	525	529.6	511.3	479.2	419.2	375	358.5	222.7	210.7	131.1	123.8	90.2
62.75	563.9	538.7	557	525	529.6	509	479.2	421.5	375	358.5	222.7	210.7	131.1	123.8	90.2
63	564.1	538.9	557.2	527.5	529.8	509.2	481.7	421.7	375.2	361.1	225.3	210.9	131.3	124	90.4
63.25	563.9	538.7	557	527.3	529.6	511.3	481.5	423.9	377.3	360.9	227.5	213.1	131.1	126.2	90.2
63.5	563.9	538.7	559.3	527.3	529.6	511.3	481.5	423.9	377.3	363.2	227.5	213.1	133.5	126.2	90.2
63.75	563.9	541	559.3	527.3	531.9	511.3	481.5	426.2	379.6	363.2	230	215.5	133.5	126.2	90.2
64	564.1	541.2	559.5	527.5	532.1	511.5	481.7	426.4	379.8	365.8	230.2	215.7	133.7	126.4	90.4
64.25	564.1	541.2	561.8	527.5	532.1	513.8	481.7	426.4	382.2	368.1	232.6	215.7	133.7	128.8	90.4
64.5	564.1	541.2	559.5	527.5	532.1	513.8	481.7	428.7	382.2	368.1	235	215.7	136.1	128.8	90.4
64.75	564.3	541.4	559.7	530	532.3	514	481.9	428.9	384.7	370.7	235.2	218.3	136.3	129	90.6
65	564.1	541.2	561.8	529.8	532.1	513.8	481.7	428.7	384.5	370.5	237.4	218.1	136.1	128.8	90.4
65.25	564.1	541.2	561.8	527.5	532.1	513.8	481.7	431	384.5	370.5	237.4	218.1	138.5	128.8	90.4
65.5	564.3	541.4	562	530	532.3	514	481.9	433.5	387	373	240	218.3	138.7	131.5	90.6
65.75	564.3	541.4	562	527.7	532.3	514	481.9	433.5	389.4	373	240	220.7	138.7	131.5	90.6
66	564.3	541.4	562	527.7	532.3	514	481.9	435.8	389.4	375.4	242.4	220.7	138.7	131.5	90.6
66.25	564.3	541.4	562	530	532.3	514	481.9	435.8	391.7	375.4	242.4	220.7	141.1	131.5	90.6
66.5	564.5	541.6	562.2	530.2	532.5	516.5	482.1	436	391.9	377.9	245	220.9	141.3	134.1	93.2
66.75	566.6	541.4	562	530	534.6	516.3	481.9	435.8	394	377.7	247.2	223.1	141.1	131.5	90.6
67	564.5	541.6	562.2	530.2	532.5	516.5	482.1	438.3	394.2	380.2	247.4	223.3	141.3	134.1	90.8
67.25	564.5	541.6	562.2	530.2	532.5	516.5	484.4	438.3	396.6	380.2	247.4	223.3	143.7	134.1	93.2
67.5	564.5	541.6	562.2	530.2	532.5	516.5	484.4	440.7	396.6	382.6	249.8	225.7	143.7	134.1	93.2
67.75	564.7	541.8	562.4	530.4	535	516.7	484.6	443.2	396.8	385.1	252.4	225.9	143.9	134.3	93.4
68	564.7	541.8	562.4	530.4	535	516.7	484.6	443.2	399.1	385.1	252.4	228.3	143.9	134.3	93.4
68.25	564.5	541.6	562.2	530.2	534.8	518.8	484.4	445.3	398.9	387.2	254.6	225.7	146.1	136.5	93.2
68.5	564.7	541.8	564.7	532.7	535	519	486.9	445.5	399.1	387.4	254.8	228.3	146.3	136.7	93.4
68.75	564.9	542	562.6	532.9	535.2	519.2	487.1	445.7	401.6	390	257.4	228.5	148.9	139.3	93.6
69	564.7	541.8	562.4	532.7	535	519	486.9	445.5	401.4	392.1	257.2	230.8	148.7	139.1	93.4
69.25	564.9	542	562.6	532.9	535.2	519.2	487.1	448	404	392.3	259.8	231	148.9	139.3	93.6
69.5	564.7	541.8	562.4	532.7	535	519	486.9	447.8	403.8	394.4	262	230.8	148.7	139.1	93.4
69.75	564.5	541.6	562.2	532.5	534.8	518.8	486.7	449.9	405.9	394.2	261.8	230.6	150.9	141.3	93.2
70	564.5	539.4	562.2	532.5	532.5	518.8	489	449.9	405.9	396.6	264.2	233	150.9	141.3	93.2
70.25	564.5	539.4	562.2	532.5	532.5	518.8	489	449.9	405.9	396.6	266.6	233	150.9	141.3	93.2
70.5	564.5	539.4	562.2	532.5	532.5	518.8	489	452.2	408.2	398.9	266.6	233	150.9	141.3	93.2
70.75	562.4	539.6	562.4	532.7	532.7	519	491.5	450.1	408.4	401.4	266.8	235.6	153.6	143.9	93.4
71	562.4	539.6	562.4	532.7	532.7	519	491.5	452.4	408.4	401.4	269.2	235.6	153.6	143.9	95.8

71.25	564.7	539.6	562.4	535	532.7	519	491.5	452.4	410.7	403.8	269.2	235.6	156	143.9	93.4
71.5	562.4	539.6	562.4	535	532.7	519	491.5	452.4	410.7	403.8	271.6	238	156	143.9	95.8
71.75	562.4	539.6	562.4	535	532.7	519	491.5	452.4	410.7	406.1	271.6	238	156	146.3	95.8
72	562.4	539.6	562.4	535	532.7	519	491.5	452.4	410.7	406.1	274	238	158.4	146.3	95.8
72.25	562.4	539.6	562.4	535	532.7	519	493.8	454.7	413.1	408.4	276.3	238	158.4	146.3	95.8
72.5	562.4	539.6	560.1	535	532.7	519	493.8	454.7	413.1	410.7	276.3	240.4	158.4	148.7	95.8
72.75	562.6	539.8	562.6	535.2	532.9	519.2	494	454.9	415.6	410.9	278.9	240.6	158.6	148.9	96
73	562.6	539.8	562.6	535.2	532.9	521.5	494	457.2	415.6	410.9	278.9	240.6	161	148.9	96
73.25	562.6	539.8	560.3	535.2	532.9	519.2	494	457.2	415.6	413.3	281.3	243	161	148.9	96
73.5	562.6	539.8	562.6	535.2	532.9	519.2	494	457.2	417.9	413.3	281.3	243	163.4	151.3	96
73.75	562.6	542	562.6	535.2	535.2	521.5	496.3	459.5	417.9	415.6	283.7	243	163.4	151.3	96
74	562.6	542	562.6	535.2	535.2	521.5	496.3	461.8	417.9	415.6	283.7	245.4	163.4	153.8	96
74.25	560.3	542	562.6	535.2	535.2	519.2	496.3	459.5	417.9	417.9	286.1	245.4	165.8	153.8	96
74.5	560.1	541.8	560.1	535	535	521.3	496.1	461.6	420	417.7	285.9	247.6	165.6	153.6	95.8
74.75	560.3	542	560.3	535.2	535.2	519.2	496.3	461.8	420.2	420.2	288.5	247.8	165.8	153.8	96
75	560.3	542	560.3	535.2	535.2	521.5	496.3	464.1	422.5	420.2	288.5	247.8	168.2	156.2	96
75.25	560.3	542	560.3	535.2	535.2	519.2	496.3	464.1	422.5	422.5	290.9	247.8	168.2	156.2	96
75.5	560.3	542	560.3	535.2	535.2	521.5	496.3	464.1	422.5	422.5	293.3	250.2	170.7	156.2	96
75.75	560.1	541.8	560.1	535	535	521.3	498.4	463.9	424.7	422.3	293.1	250	170.5	158.4	95.8
76	560.1	541.8	560.1	535	535	521.3	498.4	466.2	424.7	424.7	295.4	252.4	170.5	158.4	95.8
76.25	559.9	541.6	559.9	534.8	534.8	521.1	498.2	466	426.8	424.5	295.2	252.2	172.7	158.2	98
76.5	560.3	542	560.3	535.2	535.2	521.5	498.6	468.7	427.2	427.2	298	252.6	173.1	161	96
76.75	560.3	542	560.3	537.5	535.2	521.5	498.6	468.7	427.2	427.2	298	252.6	175.5	161	96
77	560.3	542	560.3	537.5	537.5	521.5	498.6	468.7	427.2	427.2	300.4	255	175.5	163.4	98.4
77.25	560.5	542.2	560.5	537.7	537.7	521.7	498.8	468.9	429.7	429.7	300.6	255.2	175.7	163.6	98.6
77.5	560.5	544.5	560.5	537.7	537.7	521.7	498.8	471.2	429.7	429.7	303	257.6	178.1	163.6	98.6
77.75	560.5	544.5	560.5	537.7	537.7	521.7	498.8	471.2	432	432	305.4	257.6	178.1	163.6	98.6
78	560.5	544.5	560.5	537.7	537.7	521.7	498.8	471.2	432	432	305.4	257.6	180.5	166	98.6
78.25	558.2	544.5	560.5	537.7	537.7	521.7	498.8	473.5	432	432	307.7	260	180.5	166	98.6
78.5	558.2	544.5	560.5	537.7	537.7	521.7	501.1	473.5	434.3	434.3	307.7	260	180.5	166	98.6
78.75	558.2	544.5	562.8	537.7	540	521.7	498.8	473.5	434.3	434.3	310.1	262.4	182.9	168.4	98.6
79	558.2	546.8	562.8	535.4	540	521.7	498.8	473.5	436.6	434.3	310.1	262.4	182.9	168.4	98.6
79.25	558.2	546.8	562.8	535.4	540	521.7	501.1	475.8	436.6	434.3	312.5	262.4	185.3	170.9	98.6
79.5	558.2	546.8	562.8	535.4	540	521.7	501.1	475.8	436.6	436.6	312.5	262.4	185.3	170.9	98.6
79.75	558.2	546.8	562.8	535.4	540	521.7	498.8	475.8	436.6	436.6	314.9	264.8	187.8	173.3	98.6
80	558.2	546.8	562.8	535.4	540	521.7	498.8	475.8	436.6	436.6	317.2	267.2	187.8	173.3	98.6
80.25	558.2	546.8	562.8	535.4	540	521.7	498.8	478.1	438.9	436.6	317.2	267.2	187.8	173.3	98.6
80.5	558.4	547	563	535.6	540.2	521.9	499	478.3	439.1	439.1	319.8	267.4	190.4	173.5	98.8
80.75	558.2	544.5	562.8	535.4	540	521.7	501.1	478.1	438.9	438.9	319.6	267.2	190.2	175.7	98.6
81	558.4	544.7	563	535.6	540.2	521.9	501.3	478.3	441.5	439.1	319.8	269.8	192.8	175.9	98.8
81.25	558.4	547	565.3	535.6	540.2	524.1	501.3	478.3	441.5	439.1	322.2	269.8	192.8	178.3	98.8
81.5	558.2	546.8	562.8	535.4	540	523.9	501.1	478.1	441.3	441.3	324.3	272	195	178.1	98.6
81.75	558.4	547	565.3	535.6	540.2	524.1	499	478.3	443.8	441.5	324.5	272.2	195.2	180.7	101.2
82	558.4	547	565.3	537.9	540.2	524.1	501.3	480.6	443.8	443.8	326.9	274.6	197.6	180.7	101.2
82.25	558.4	547	565.3	537.9	540.2	524.1	501.3	480.6	443.8	443.8	326.9	274.6	197.6	180.7	101.2
82.5	558.2	546.8	565.1	535.4	540	523.9	501.1	480.4	445.9	443.6	329.1	276.7	197.4	182.9	101
82.75	558.4	547	565.3	537.9	540.2	524.1	501.3	480.6	446.1	443.8	331.6	276.9	200	183.1	101.2
83	558.4	547	565.3	535.6	540.2	524.1	501.3	482.9	446.1	443.8	331.6	276.9	200	185.5	101.2
83.25	558.4	547	565.3	537.9	542.4	524.1	501.3	482.9	448.4	446.1	334	279.3	202.4	185.5	101.2
83.5	558.4	547	565.3	537.9	542.4	526.4	501.3	482.9	448.4	446.1	334	279.3	202.4	188	101.2
83.75	558.4	547	565.3	537.9	542.4	526.4	501.3	482.9	448.4	446.1	336.4	281.7	204.8	188	101.2
84	558.2	546.8	567.4	537.7	542.2	526.2	503.3	482.7	448.2	445.9	336.2	281.5	204.6	187.8	101
84.25	558.4	547	567.6	537.9	542.4	526.4	503.5	485.2	450.7	448.4	338.7	284.1	207.3	190.4	101.2
84.5	558.2	549.1	567.4	537.7	542.2	526.2	503.3	485	450.5	448.2	340.9	283.9	207.1	192.6	101
84.75	560.5	549.1	567.4	537.7	542.2	526.2	503.3	485	450.5	448.2	340.9	286.3	209.5	192.6	101
85	558.2	549.1	567.4	537.7	542.2	528.5	503.3	487.3	452.8	448.2	343.3	286.3	209.5	192.6	101
85.25	560.7	549.3	569.9	540.2	542.4	528.7	505.8	487.5	453	450.7	343.5	286.5	209.7	195.2	101.2
85.5	560.5	549.1	569.7	540	544.5	528.5	505.6	487.3	455.1	450.5	345.6	288.7	211.9	195	103.4

85.75	560.5	549.1	569.7	540	544.5	528.5	505.6	487.3	455.1	452.8	348	288.7	211.9	197.4	101
86	560.5	551.4	569.7	540	544.5	528.5	505.6	489.6	455.1	452.8	348	291.1	214.3	197.4	103.4
86.25	560.5	549.1	569.7	542.2	544.5	528.5	505.6	489.6	455.1	452.8	350.3	293.5	216.7	199.8	101
86.5	560.7	551.6	569.9	542.4	544.7	531	508.1	489.8	457.6	455.3	352.9	293.7	216.9	200	103.6
86.75	560.5	551.4	569.7	542.2	544.5	530.8	507.9	491.9	457.4	455.1	352.7	295.8	219.1	202.2	101
87	560.5	551.4	569.7	542.2	544.5	530.8	507.9	491.9	459.7	455.1	355	295.8	219.1	202.2	103.4
87.25	560.5	551.4	569.7	544.5	546.8	530.8	510.2	491.9	459.7	457.4	357.4	295.8	221.5	204.6	103.4

Test 8

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	10.4	22.2	22.2	22.2	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
0.5	22.2	22.2	22.2	22.2	22.2	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
0.75	22.2	22.2	22.2	22.2	22.2	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
1	24.6	22.2	22.2	22.2	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
1.25	29.7	22.6	22.6	22.6	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
1.5	37	25.2	25.2	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
1.75	44.1	25.2	25.2	25.2	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2	51.2	27.5	27.5	27.5	22.8	20.4	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2.25	56	29.9	29.9	29.9	22.8	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2.5	63.3	32.5	34.8	32.5	25.4	23	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
2.75	68.1	34.8	39.6	34.8	25.4	23	25.4	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6
3	72.9	39.6	41.9	39.6	25.4	25.4	25.4	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6
3.25	77.6	41.9	46.7	41.9	27.7	25.4	27.7	25.4	20.6	20.6	20.6	20.6	20.6	20.6	20.6
3.5	80.2	46.9	51.6	44.5	30.3	25.6	30.3	25.6	20.8	20.8	20.8	20.8	20.8	20.8	20.8
3.75	82.6	49.2	54	49.2	32.7	27.9	32.7	27.9	20.8	20.8	20.8	20.8	20.8	20.8	20.8
4	85	51.6	58.8	51.6	32.7	30.3	32.7	30.3	20.8	20.8	20.8	20.8	20.8	20.8	20.8
4.25	87.4	54	63.5	54	35	30.3	35	32.7	20.8	20.8	20.8	20.8	20.8	20.8	20.8
4.5	89.8	56.4	65.9	56.4	37.4	32.7	37.4	35	20.8	23.2	20.8	20.8	20.8	20.8	20.8
4.75	90	59	68.5	59	40	35.2	40	35.2	21	23.4	21	21	21	21	21
5	90	61.3	70.9	61.3	42.3	35.2	40	37.6	21	23.4	21	21	21	21	21
5.25	92.6	63.9	73.5	63.9	44.9	37.8	44.9	40.2	21.2	26	21.2	21.2	21.2	21.2	21.2
5.5	92.6	66.3	73.5	63.9	44.9	40.2	44.9	42.5	23.6	26	21.2	21.2	21.2	21.2	21.2
5.75	92.8	68.9	76.1	66.5	47.5	40.4	47.5	42.7	23.8	26.2	21.4	21.4	21.4	21.4	21.4
6	92.6	71.1	78.2	68.7	49.6	42.5	47.3	44.9	23.6	28.3	21.2	21.2	21.2	21.2	21.2
6.25	92.8	71.3	78.4	68.9	52.2	45.1	49.8	47.5	23.8	28.5	21.4	21.4	21.4	21.4	21.4
6.5	92.8	73.7	80.8	71.3	52.2	45.1	52.2	47.5	23.8	30.9	21.4	21.4	21.4	21.4	21.4
6.75	92.8	73.7	80.8	71.3	54.6	47.5	52.2	49.8	26.2	30.9	21.4	21.4	21.4	21.4	21.4
7	92.8	76.1	80.8	73.7	54.6	47.5	54.6	52.2	26.2	33.3	21.4	21.4	21.4	23.8	21.4
7.25	92.8	76.1	83.2	73.7	57	49.8	54.6	52.2	26.2	33.3	21.4	21.4	21.4	21.4	21.4
7.5	93	76.3	83.4	73.9	59.6	50	57.2	54.8	26.4	33.5	21.6	21.6	21.6	24	21.6
7.75	92.8	78.4	83.2	76.1	59.4	52.2	57	54.6	28.5	35.6	21.4	21.4	21.4	23.8	21.4
8	93	78.6	83.4	76.3	61.9	52.4	59.6	57.2	28.7	35.8	21.6	24	21.6	24	21.6
8.25	95.4	81	83.4	76.3	61.9	54.8	61.9	54.8	28.7	38.2	21.6	24	21.6	24	21.6
8.5	93	81	85.8	78.6	64.3	54.8	61.9	57.2	31.1	38.2	21.6	24	21.6	24	21.6
8.75	92.8	80.8	85.6	78.4	64.1	54.6	64.1	57	30.9	40.4	23.8	23.8	21.4	23.8	21.4
9	95.4	81	85.8	78.6	64.3	57.2	64.3	59.6	33.5	40.6	24	24	21.6	26.4	21.6
9.25	95.4	83.4	85.8	78.6	66.7	57.2	64.3	61.9	33.5	40.6	24	24	21.6	26.4	21.6
9.5	95.4	83.4	85.8	81	66.7	59.6	64.3	61.9	33.5	42.9	24	26.4	21.6	26.4	21.6
9.75	95.6	83.6	88.4	81.2	69.3	59.8	66.9	62.1	36	43.1	26.6	26.6	24.2	26.6	21.8
10	95.6	83.6	88.4	81.2	69.3	62.1	66.9	64.5	36	43.1	26.6	26.6	24.2	26.6	21.8
10.25	95.6	83.6	88.4	81.2	69.3	62.1	69.3	64.5	36	45.5	26.6	26.6	24.2	26.6	21.8
10.5	95.6	83.6	88.4	83.6	71.7	62.1	69.3	64.5	38.4	45.5	26.6	26.6	24.2	28.9	21.8
10.75	95.6	83.6	88.4	83.6	71.7	62.1	69.3	64.5	38.4	47.9	28.9	28.9	24.2	28.9	21.8
11	95.8	86.2	88.6	83.8	71.9	64.7	71.9	64.7	41	48.1	29.1	29.1	24.4	29.1	22
11.25	95.8	86.2	88.6	83.8	71.9	64.7	71.9	67.1	41	48.1	29.1	29.1	24.4	29.1	22
11.5	95.8	86.2	88.6	83.8	74.3	64.7	71.9	67.1	41	48.1	29.1	29.1	26.8	29.1	22
11.75	96	86.4	88.8	84	74.5	67.3	72.1	67.3	41.2	50.6	31.7	29.3	27	31.7	22.2
12	96	86.4	88.8	84	74.5	67.3	72.1	67.3	43.5	50.6	31.7	31.7	24.6	31.7	22.2
12.25	96	86.4	88.8	84	74.5	67.3	72.1	69.7	43.5	50.6	31.7	31.7	27	31.7	22.2
12.5	96.2	86.6	89	84.2	77.1	67.5	74.7	69.9	46.1	53.2	31.9	31.9	27.2	31.9	22.4
12.75	98.4	88.8	88.8	86.4	76.9	69.7	74.5	69.7	45.9	53	34.1	31.7	27	34.1	22.2
13	98.4	88.8	88.8	86.4	76.9	69.7	74.5	72.1	45.9	53	34.1	34.1	27	34.1	22.2

13.25	98.4	88.8	88.8	86.4	76.9	69.7	74.5	72.1	48.3	55.4	34.1	34.1	27	34.1	22.2
13.5	98.4	88.8	88.8	86.4	76.9	69.7	76.9	72.1	48.3	55.4	36.4	34.1	29.3	34.1	22.2
13.75	98.6	89	89	86.6	77.1	72.3	77.1	69.9	48.5	55.6	36.6	34.3	29.5	34.3	22.4
14	98.6	89	89	86.6	79.4	72.3	77.1	72.3	50.8	55.6	36.6	34.3	29.5	34.3	22.4
14.25	98.6	89	89	86.6	79.4	72.3	77.1	74.7	50.8	55.6	36.6	36.6	29.5	36.6	22.4
14.5	98.6	89	91.4	86.6	79.4	72.3	77.1	72.3	50.8	55.6	39	36.6	29.5	36.6	22.4
14.75	101	89	91.4	86.6	79.4	72.3	77.1	74.7	50.8	58	39	36.6	29.5	36.6	22.4
15	101	89	91.4	86.6	79.4	74.7	79.4	74.7	50.8	58	39	36.6	29.5	36.6	22.4
15.25	101	91.4	91.4	89	81.8	74.7	79.4	74.7	53.2	58	41.4	36.6	31.9	36.6	24.8
15.5	101.2	89.2	91.6	89.2	82	74.9	79.6	74.9	53.4	60.6	41.6	39.2	32.1	36.8	25
15.75	103.6	91.6	91.6	89.2	82	74.9	79.6	74.9	53.4	60.6	41.6	39.2	32.1	39.2	25
16	103.4	91.4	91.4	89	81.8	74.7	79.4	77.1	55.6	60.4	41.4	39	31.9	39	24.8
16.25	103.6	91.6	91.6	89.2	82	74.9	79.6	74.9	55.8	62.9	43.9	39.2	34.5	39.2	25
16.5	103.4	91.4	91.4	89	81.8	77.1	81.8	74.7	55.6	62.7	43.7	39	34.3	39	24.8
16.75	103.6	91.6	91.6	89.2	82	77.3	82	77.3	55.8	62.9	43.9	41.6	34.5	41.6	25
17	103.4	91.4	91.4	89	84.2	77.1	81.8	77.1	55.6	62.7	46.1	41.4	34.3	41.4	24.8
17.25	106	91.6	91.6	89.2	84.4	77.3	82	77.3	58.2	62.9	46.3	41.6	34.5	41.6	25
17.5	106	91.6	91.6	89.2	82	77.3	82	77.3	58.2	62.9	46.3	41.6	34.5	41.6	25
17.75	106	91.6	91.6	91.6	84.4	77.3	82	79.6	58.2	65.3	46.3	41.6	36.8	41.6	25
18	105.8	91.4	91.4	91.4	84.2	79.4	84.2	77.1	60.4	65.1	46.1	43.7	36.6	41.4	24.8
18.25	108.2	91.4	91.4	91.4	84.2	79.4	84.2	79.4	60.4	65.1	46.1	43.7	36.6	43.7	24.8
18.5	108.6	94.2	91.8	91.8	84.6	79.8	84.6	77.5	60.8	65.5	48.9	44.1	37	44.1	27.6
18.75	108.6	94.2	91.8	91.8	84.6	79.8	84.6	77.5	60.8	67.9	48.9	44.1	37	44.1	27.6
19	108.6	94.2	91.8	91.8	84.6	79.8	84.6	79.8	63.1	65.5	48.9	46.5	39.4	44.1	27.6
19.25	111	94.2	94.2	91.8	84.6	79.8	84.6	77.5	63.1	67.9	51.2	44.1	39.4	44.1	25.2
19.5	111	94.2	91.8	91.8	84.6	79.8	84.6	79.8	63.1	67.9	51.2	46.5	39.4	46.5	27.6
19.75	113.4	94.2	91.8	91.8	84.6	79.8	84.6	79.8	63.1	67.9	51.2	46.5	39.4	44.1	27.6
20	113.6	94.4	92	94.4	84.8	82.4	84.8	80	65.7	68.1	51.4	46.7	39.6	46.7	27.8
20.25	113.4	94.2	94.2	94.2	87	82.2	87	79.8	65.5	67.9	51.2	46.5	39.4	46.5	27.6
20.5	116	94.4	94.4	94.4	87.2	82.4	87.2	80	65.7	70.5	53.8	46.7	42	46.7	27.8
20.75	115.8	94.2	91.8	94.2	87	82.2	87	79.8	65.5	70.3	53.6	48.9	41.8	46.5	27.6
21	118.4	94.4	92	94.4	87.2	82.4	87.2	80	65.7	70.5	53.8	46.7	42	46.7	27.8
21.25	118.4	96.8	94.4	94.4	87.2	82.4	87.2	80	65.7	70.5	53.8	49.1	42	49.1	27.8
21.5	120.8	96.8	94.4	94.4	87.2	84.8	87.2	82.4	65.7	70.5	56.2	49.1	42	49.1	30.1
21.75	120.8	96.8	94.4	94.4	87.2	84.8	89.6	80	68.1	70.5	56.2	49.1	42	49.1	30.1
22	123.2	96.8	94.4	94.4	87.2	84.8	89.6	82.4	68.1	72.9	56.2	49.1	44.3	49.1	30.1
22.25	123.2	96.8	94.4	96.8	87.2	84.8	89.6	82.4	68.1	72.9	56.2	49.1	44.3	49.1	30.1
22.5	125.6	96.8	94.4	96.8	89.6	84.8	89.6	82.4	68.1	72.9	56.2	51.4	44.3	49.1	30.1
22.75	125.6	96.8	94.4	96.8	89.6	84.8	89.6	82.4	68.1	72.9	58.6	51.4	44.3	49.1	30.1
23	128.2	97	94.6	97	89.8	87.4	89.8	82.6	70.7	73.1	58.8	51.7	44.5	51.7	30.3
23.25	128	96.8	94.4	96.8	89.6	87.2	89.6	82.4	70.5	72.9	58.6	51.4	46.7	51.4	30.1
23.5	132.9	99.2	96.8	96.8	89.6	87.2	89.6	82.4	70.5	75.3	58.6	51.4	46.7	51.4	30.1
23.75	135.5	99.4	94.6	97	89.8	87.4	92.2	82.6	70.7	75.5	58.8	51.7	46.9	51.7	30.3
24	138.1	99.6	97.2	99.6	90	87.6	92.4	82.8	70.9	75.7	61.4	54.2	47.1	51.9	32.9
24.25	140.3	99.4	97	99.4	89.8	87.4	92.2	82.6	70.7	75.5	61.2	54	46.9	54	32.7
24.5	142.7	99.4	97	99.4	92.2	87.4	92.2	82.6	73.1	75.5	61.2	54	46.9	54	32.7
24.75	145.1	99.4	97	99.4	92.2	89.8	92.2	82.6	73.1	75.5	61.2	54	46.9	54	32.7
25	147.3	101.6	96.8	99.2	92	89.6	92	82.4	72.9	75.3	61	53.8	46.7	53.8	32.5
25.25	149.7	101.6	96.8	99.2	92	89.6	92	82.4	72.9	75.3	63.3	53.8	49.1	53.8	32.5
25.5	152.3	101.8	99.4	99.4	92.2	89.8	94.6	82.6	73.1	75.5	63.5	54	49.3	54	32.7
25.75	154.8	101.8	99.4	101.8	92.2	89.8	94.6	82.6	75.5	75.5	63.5	56.4	49.3	54	32.7
26	157.2	104.2	99.4	101.8	94.6	89.8	94.6	82.6	73.1	77.9	63.5	56.4	49.3	54	35.1
26.25	162	104.2	99.4	101.8	94.6	92.2	94.6	85	75.5	77.9	65.9	56.4	49.3	54	32.7
26.5	164.4	104.2	99.4	104.2	94.6	92.2	94.6	85	75.5	77.9	65.9	56.4	49.3	54	35.1
26.75	169.2	104.2	99.4	104.2	94.6	92.2	94.6	85	75.5	77.9	65.9	56.4	49.3	56.4	35.1
27	171.7	106.6	101.8	104.2	94.6	92.2	94.6	85	75.5	77.9	65.9	56.4	49.3	56.4	35.1
27.25	174.1	106.6	101.8	104.2	97	92.2	97	82.6	75.5	77.9	65.9	56.4	51.7	56.4	35.1
27.5	176.5	106.6	101.8	104.2	97	94.6	97	85	75.5	77.9	65.9	58.8	51.7	56.4	35.1

27.75	181.3	109	101.8	104.2	97	94.6	97	85	75.5	77.9	65.9	58.8	51.7	56.4	35.1
28	183.7	109	101.8	104.2	97	94.6	97	85	77.9	77.9	65.9	58.8	51.7	56.4	35.1
28.25	186.1	111.4	101.8	106.6	99.4	94.6	97	85	77.9	80.2	68.3	58.8	54	56.4	37.4
28.5	188.6	111.4	101.8	106.6	99.4	94.6	97	85	77.9	77.9	68.3	58.8	54	56.4	35.1
28.75	191	111.4	101.8	106.6	101.8	97	99.4	87.4	77.9	80.2	68.3	58.8	54	58.8	37.4
29	193.4	113.8	101.8	106.6	101.8	99.4	99.4	87.4	77.9	80.2	68.3	58.8	54	58.8	37.4
29.25	195.8	113.8	101.8	109	104.2	101.8	99.4	87.4	80.2	80.2	68.3	58.8	54	58.8	37.4
29.5	198.2	116.2	101.8	109	101.8	101.8	99.4	85	80.2	80.2	68.3	58.8	54	58.8	37.4
29.75	200.6	118.6	101.8	111.4	101.8	104.2	101.8	87.4	80.2	80.2	70.7	61.2	54	58.8	37.4
30	203.2	118.8	102	111.6	104.4	104.4	102	87.6	80.4	80.4	70.9	61.4	54.2	59	37.6
30.25	205.6	121.2	104.4	111.6	104.4	104.4	104.4	87.6	80.4	80.4	70.9	61.4	56.6	59	37.6
30.5	210.7	123.8	104.6	114.2	104.6	104.6	104.6	87.8	80.6	80.6	71.1	61.6	56.8	59.2	37.8
30.75	212.9	123.6	104.4	114	104.4	104.4	104.4	87.6	80.4	82.8	70.9	63.7	56.6	59	40
31	213.1	126.2	104.6	116.6	104.6	104.6	104.6	90.2	83	83	71.1	63.9	56.8	59.2	40.2
31.25	217.7	128.4	106.8	116.4	104.4	104.4	104.4	90	82.8	82.8	70.9	63.7	56.6	61.4	40
31.5	217.7	128.4	109.2	118.8	104.4	104.4	106.8	90	82.8	82.8	73.3	63.7	56.6	61.4	40
31.75	220.1	130.8	109.2	121.2	104.4	104.4	106.8	90	82.8	82.8	73.3	63.7	56.6	61.4	40
32	225.1	133.5	111.8	121.4	104.6	104.6	107	90.2	83	83	73.5	63.9	56.8	61.6	40.2
32.25	227.5	135.9	111.8	123.8	104.6	104.6	107	92.6	83	83	73.5	63.9	56.8	61.6	40.2
32.5	229.9	135.9	114.2	123.8	104.6	104.6	107	90.2	85.4	83	73.5	63.9	56.8	61.6	40.2
32.75	232.2	138.1	114	126	106.8	104.4	109.2	92.4	85.2	85.2	73.3	66.1	56.6	61.4	40
33	234.8	143.1	116.6	128.6	107	104.6	109.4	92.6	85.4	85.4	73.5	66.3	59.2	63.9	42.6
33.25	237.2	143.1	116.6	131	107	104.6	109.4	92.6	85.4	85.4	75.9	66.3	59.2	63.9	42.6
33.5	242.2	145.7	119.2	131.2	107.2	104.8	109.6	95.2	85.6	85.6	76.1	66.5	59.4	64.1	42.8
33.75	244.6	148.1	121.6	133.7	107.2	104.8	112	95.2	85.6	85.6	76.1	66.5	59.4	64.1	42.8
34	246.6	150.1	123.6	135.7	106.8	104.4	111.6	94.8	85.2	85.2	75.7	66.1	59	63.7	42.4
34.25	249	152.5	123.6	135.7	109.2	104.4	111.6	94.8	87.6	85.2	75.7	66.1	59	63.7	42.4
34.5	253.8	155	126	138.1	109.2	104.4	114	97.2	87.6	87.6	75.7	66.1	59	63.7	42.4
34.75	255.6	154.4	127.8	139.9	111	103.8	113.4	94.2	87	87	75.1	67.9	60.8	65.5	41.8
35	258	156.8	130.2	142.3	111	103.8	115.8	96.6	87	87	77.5	67.9	60.8	65.5	44.1
35.25	262.8	159.2	132.7	144.7	113.4	106.2	115.8	96.6	89.4	87	77.5	67.9	60.8	65.5	44.1
35.5	265.2	161.6	135.1	144.7	113.4	106.2	115.8	96.6	89.4	87	77.5	67.9	60.8	65.5	44.1
35.75	270.2	164.2	135.3	147.3	113.6	106.4	118.4	96.8	89.6	87.2	77.7	68.1	61	65.7	44.3
36	272.4	166.4	139.9	149.5	115.8	106.2	118.2	96.6	89.4	87	77.5	67.9	60.8	65.5	44.1
36.25	277.1	168.8	139.9	151.9	115.8	106.2	120.6	99	89.4	89.4	77.5	70.3	63.1	65.5	44.1
36.5	279.7	171.5	142.5	152.1	118.4	108.8	120.8	99.2	89.6	89.6	80	68.1	63.3	65.7	44.3
36.75	284.7	171.7	145.1	154.8	118.6	109	123.4	99.4	89.8	89.8	80.2	68.3	63.5	65.9	44.5
37	289.1	173.7	147.1	156.8	120.6	108.6	123	99	89.4	89.4	79.8	70.3	63.1	65.5	46.5
37.25	293.5	175.7	149.1	158.8	122.6	110.6	125	101	91.4	89	79.4	69.9	62.7	67.5	46.1
37.5	295.8	178.1	151.5	161.2	122.6	110.6	127.4	101	91.4	89	79.4	69.9	62.7	67.5	46.1
37.75	300.6	180.5	151.5	161.2	125	113	127.4	101	91.4	91.4	79.4	69.9	62.7	67.5	46.1
38	305	182.5	153.6	163.2	124.6	112.6	129.4	100.6	91	91	79	69.5	62.3	67.1	45.7
38.25	309.9	185.1	156.2	165.8	127.2	112.8	129.6	100.8	91.2	91.2	81.6	69.7	64.9	67.3	45.9
38.5	314.5	187.4	158.4	168	129.4	115	131.9	100.6	91	91	81.4	71.9	64.7	67.1	45.7
38.75	319.4	190	161	170.7	132.1	115.2	132.1	100.8	93.6	91.2	81.6	72.1	64.9	67.3	45.9
39	323.9	192.2	160.8	172.9	131.9	117.4	134.3	103	93.4	91	81.4	71.9	64.7	67.1	48.1
39.25	328.9	194.8	165.8	173.1	134.5	117.6	134.5	103.2	93.6	93.6	81.6	72.1	64.9	67.3	48.3
39.5	331.2	199.6	168.2	175.5	136.9	120	136.9	103.2	93.6	93.6	81.6	72.1	64.9	69.7	48.3
39.75	336	202	170.7	177.9	139.3	122.4	139.3	103.2	93.6	93.6	81.6	74.5	64.9	69.7	48.3
40	340.7	204.4	170.7	180.3	141.7	122.4	141.7	105.6	93.6	93.6	84	72.1	64.9	69.7	48.3
40.25	345.6	207.1	173.3	182.9	141.9	125	144.3	105.8	93.8	93.8	84.2	74.7	65.1	69.9	48.5
40.5	347.8	209.3	175.5	185.1	144.1	124.8	144.1	105.6	96	93.6	84	74.5	67.3	69.7	48.3
40.75	352.3	211.5	177.7	187.4	146.3	127	146.3	105.4	95.8	95.8	83.8	74.3	67.1	69.5	48.1
41	356.6	215.9	179.7	189.4	148.3	129	148.3	105	95.4	95.4	83.4	73.9	66.7	71.5	50
41.25	358.7	218.1	181.9	191.6	150.5	131.3	150.5	104.8	95.2	95.2	83.2	73.7	66.5	71.3	49.8
41.5	361.3	220.7	184.5	194.2	153.2	131.5	153.2	107.4	95.4	95.4	85.8	76.3	66.7	71.5	50
41.75	363.8	223.3	187.2	196.8	155.8	134.1	155.8	107.6	95.6	95.6	86	76.5	66.9	71.7	50.2
42	368.3	225.5	189.4	199	158	136.3	158	107.4	97.8	97.8	85.8	76.3	66.7	71.5	50

42.25	370.7	227.9	191.8	201.4	160.4	138.7	158	109.8	97.8	97.8	85.8	76.3	66.7	71.5	50
42.5	373	230.4	194.2	203.8	162.8	138.7	160.4	109.8	97.8	97.8	85.8	76.3	69.1	71.5	50
42.75	375.6	235.4	196.8	206.5	165.4	141.3	163	110	98	98	86	76.5	69.3	71.7	52.6
43	375.4	237.6	199	208.7	167.6	143.5	165.2	112.2	97.8	97.8	85.8	78.6	69.1	71.5	52.4
43.25	377.9	237.8	201.6	211.3	170.3	146.1	167.8	112.4	98	98	88.4	78.8	69.3	74.1	52.6
43.5	380.4	240.4	204.2	213.9	170.5	148.7	170.5	115	100.6	100.6	88.6	79	69.5	74.3	52.8
43.75	383	243	209.3	216.5	173.1	151.3	173.1	115.2	100.8	98.4	88.8	79.2	69.7	74.5	53
44	385.3	247.8	209.3	218.9	175.5	151.3	173.1	115.2	100.8	100.8	88.8	79.2	69.7	74.5	53
44.25	387.8	250.4	211.9	221.5	178.1	154	175.7	115.4	101	101	89	79.4	69.9	74.7	53.2
44.5	390.2	252.8	214.3	223.9	180.5	156.4	178.1	117.8	101	101	91.4	81.8	69.9	74.7	55.6
44.75	392.5	255.2	216.7	226.3	182.9	158.8	180.5	120.2	101	101	89	81.8	72.3	74.7	55.6
45	394.8	257.6	219.1	228.7	185.3	161.2	182.9	120.2	101	101	91.4	81.8	72.3	74.7	55.6
45.25	397.2	257.6	221.5	231.2	187.8	161.2	185.3	120.2	103.4	101	91.4	81.8	72.3	77.1	55.6
45.5	399.9	260.4	224.3	234	190.6	164	188.2	123	103.8	101.4	91.8	82.2	72.7	75.1	56
45.75	402	262.6	226.5	236.2	192.8	166.2	190.4	122.8	103.6	101.2	91.6	82	72.5	77.3	55.8
46	404.6	267.6	229.1	238.8	195.4	168.8	190.6	125.4	103.8	103.8	91.8	84.6	72.7	77.5	56
46.25	407.1	267.8	231.8	241.4	198	171.5	193.2	128	106.4	104	94.4	82.4	72.9	77.7	56.2
46.5	411.7	270.2	234.2	243.8	200.4	173.9	195.6	128	104	104	94.4	84.8	72.9	77.7	56.2
46.75	414.1	272.6	236.6	246.2	202.8	176.3	198	130.4	106.4	104	94.4	84.8	72.9	77.7	56.2
47	416.4	275	239	248.6	205.2	176.3	200.4	130.4	106.4	104	94.4	84.8	75.3	77.7	58.6
47.25	418.9	277.5	241.6	253.6	207.9	178.9	200.6	133.1	106.6	104.2	94.6	85	75.5	77.9	56.4
47.5	421.2	279.9	244	253.6	210.3	181.3	203	133.1	106.6	104.2	94.6	87.4	75.5	80.2	56.4
47.75	423.5	279.9	246.4	256	210.3	183.7	205.4	133.1	106.6	104.2	94.6	87.4	75.5	80.2	58.8
48	425.9	282.3	248.8	258.4	212.7	186.1	207.9	135.5	106.6	106.6	97	87.4	75.5	80.2	58.8
48.25	428.4	284.9	249	261	215.3	188.8	210.5	135.7	106.8	104.4	97.2	87.6	75.7	80.4	59
48.5	430.7	287.3	251.4	263.4	217.7	191.2	210.5	138.1	106.8	106.8	97.2	87.6	75.7	80.4	59
48.75	432.8	289.5	253.6	265.6	219.9	193.4	212.7	137.9	106.6	106.6	97	87.4	77.9	80.2	58.8
49	435.1	291.9	256	265.6	222.3	195.8	215.1	140.3	106.6	106.6	99.4	87.4	77.9	82.6	58.8
49.25	437.6	294.5	258.6	268.2	224.9	198.4	217.7	142.9	106.8	106.8	99.6	87.6	78.1	82.8	59
49.5	437.6	296.8	261	270.6	224.9	200.8	220.1	142.9	106.8	106.8	99.6	90	78.1	82.8	59
49.75	439.9	296.8	263.4	273	227.3	200.8	222.5	145.3	106.8	106.8	99.6	90	78.1	82.8	59
50	442.3	299.2	263.4	275.4	229.7	203.2	224.9	147.7	106.8	106.8	99.6	90	78.1	82.8	61.4
50.25	444.6	301.6	265.8	277.7	232.2	205.6	227.3	147.7	106.8	106.8	99.6	90	78.1	82.8	61.4
50.5	444.8	304.2	268.4	277.9	234.8	208.3	229.9	147.9	107	107	99.8	92.6	78.3	83	61.6
50.75	447.1	304.2	270.8	280.3	237.2	210.7	229.9	150.3	107	107	99.8	92.6	80.6	85.4	61.6
51	451.7	306.6	273.2	282.7	239.6	213.1	232.4	152.7	109.4	107	99.8	92.6	80.6	85.4	61.6
51.25	451.5	308.7	275.4	284.9	239.4	215.3	234.6	152.5	109.2	106.8	102	92.4	80.4	85.2	61.4
51.5	454	311.3	277.9	287.5	242	217.9	237.2	155.2	109.4	107	102.2	92.6	80.6	85.4	63.9
51.75	456.3	313.7	280.3	289.9	244.4	220.3	239.6	155.2	109.4	107	102.2	92.6	80.6	85.4	61.6
52	458.6	316.1	280.3	289.9	246.8	222.7	242	157.6	109.4	109.4	102.2	92.6	83	85.4	63.9
52.25	460.9	318.4	282.7	294.7	249.2	225.1	244.4	157.6	111.8	109.4	102.2	95	83	87.8	63.9
52.5	460.9	320.8	285.1	297	251.6	227.5	246.8	160	111.8	109.4	102.2	95	83	87.8	63.9
52.75	461.1	321	287.7	297.2	254.2	230.1	249.4	162.6	112	109.6	102.4	95.2	83.2	88	64.1
53	463.2	323.2	287.5	299.4	256.4	232.4	251.6	162.4	114.2	109.4	102.2	95	83	87.8	63.9
53.25	463.4	325.7	290.1	302	259	237.4	254.2	162.6	114.4	109.6	102.4	95.2	85.6	88	64.1
53.5	465.5	327.9	292.3	304.2	258.8	239.6	256.4	164.8	114.2	111.8	104.6	95	85.4	87.8	63.9
53.75	465.7	330.5	294.9	306.8	261.4	242.2	256.6	167.4	114.4	112	102.4	97.6	85.6	90.4	64.1
54	468	332.8	297.2	309.1	263.8	244.6	259	167.4	116.8	112	104.8	97.6	85.6	88	64.1
54.25	468	335.2	299.6	309.1	266.2	247	261.4	169.8	116.8	112	104.8	97.6	85.6	90.4	66.5
54.5	470.3	335.2	302	311.5	268.6	249.4	263.8	169.8	119.2	114.4	104.8	97.6	85.6	90.4	64.1
54.75	472.6	337.6	304.4	313.9	271	254.2	266.2	172.3	119.2	114.4	104.8	97.6	85.6	90.4	66.5
55	472.6	337.6	304.4	316.3	273.4	256.6	266.2	174.7	119.2	114.4	104.8	97.6	85.6	90.4	66.5
55.25	472.8	337.8	307	318.8	276	259.2	268.8	174.9	119.4	114.6	105	97.8	88.2	90.6	66.7
55.5	475.1	337.8	309.3	318.8	276	261.6	271.2	177.3	121.8	117	105	97.8	88.2	93	66.7
55.75	475.1	340.1	311.7	321.2	278.3	264	273.6	177.3	124.2	117	105	97.8	88.2	93	66.7
56	477.4	340.1	314.1	323.6	280.7	266.4	276	177.3	124.2	119.4	105	100.2	88.2	93	66.7
56.25	477.4	342.5	316.5	325.9	283.1	268.8	278.3	179.7	124.2	119.4	105	100.2	88.2	93	66.7
56.5	477.4	342.5	316.5	325.9	285.5	271.2	280.7	182.1	126.6	121.8	105	100.2	88.2	93	66.7

56.75	479.7	344.9	321.2	328.3	287.9	273.6	283.1	182.1	126.6	121.8	105	100.2	88.2	93	66.7
57	479.9	347.4	321.4	330.9	288.1	276.2	283.3	184.7	129.2	124.4	105.2	100.4	90.8	93.2	66.9
57.25	482	349.6	323.6	333	290.3	278.3	285.5	184.5	129	124.2	105	100.2	90.6	95.4	66.7
57.5	481.8	349.4	325.7	332.8	292.5	280.5	287.7	186.7	131.2	124	104.8	100	90.4	95.2	68.9
57.75	481.8	351.7	328.1	335.2	294.9	282.9	290.1	189.2	131.2	126.4	104.8	100	90.4	95.2	68.9
58	481.8	354.1	330.5	337.6	297.2	285.3	290.1	189.2	133.7	126.4	104.8	102.4	90.4	95.2	68.9
58.25	484.3	354.3	333	340.1	297.4	287.9	292.7	191.8	133.9	129	105	102.6	93	95.4	69.1
58.5	483.9	356.2	335	339.7	299.4	287.5	294.7	191.4	135.9	128.6	104.6	102.2	92.6	95	68.7
58.75	486.2	358.6	337.4	342.1	301.8	289.9	297	193.8	135.9	128.6	104.6	102.2	92.6	97.4	68.7
59	486.6	361.3	340.1	344.9	304.6	292.7	299.8	194.2	138.7	131.4	105	102.6	93	97.8	69.1
59.25	486.4	361.1	342.3	347	304.4	294.9	302	196.4	140.9	133.7	104.8	102.4	92.8	97.6	68.9
59.5	486.4	363.5	344.7	347	306.8	297.2	302	198.8	140.9	133.7	104.8	102.4	92.8	97.6	68.9
59.75	488.9	366	347.2	349.6	309.3	299.8	304.6	199	143.5	133.9	105	102.6	93	97.8	69.1
60	488.9	368.4	349.6	351.9	311.7	299.8	307	201.4	143.5	136.3	105	102.6	95.4	97.8	69.1
60.25	491.2	370.7	351.9	354.3	311.7	302.2	309.3	201.4	145.9	136.3	105	102.6	95.4	97.8	69.1
60.5	491.2	373.1	354.3	354.3	314.1	304.6	311.7	201.4	145.9	138.7	105	102.6	95.4	97.8	69.1
60.75	491.2	373.1	356.6	356.6	316.5	307	311.7	203.8	148.3	141.1	105	105	95.4	97.8	71.5
61	491.2	375.4	361.3	359	316.5	307	314.1	203.8	150.7	141.1	105	105	95.4	100.2	69.1
61.25	493.5	377.8	361.3	361.3	318.8	309.3	316.5	206.2	150.7	143.5	105	105	95.4	100.2	69.1
61.5	493.7	380.3	363.9	361.5	321.4	311.9	319	208.9	153.3	143.7	105.2	105.2	95.6	100.4	71.7
61.75	493.5	380.1	366	363.7	321.2	314.1	318.8	208.7	155.6	145.9	105	105	95.4	100.2	71.5
62	493.5	382.4	368.4	366	323.6	314.1	321.2	211.1	155.6	145.9	105	105	95.4	100.2	71.5
62.25	495.8	384.8	370.7	366	325.9	316.5	323.6	211.1	158	148.3	105	105	97.8	100.2	71.5
62.5	495.8	387.1	373.1	368.4	325.9	318.8	325.9	211.1	160.4	148.3	105	105	97.8	100.2	71.5
62.75	495.6	389.2	377.6	370.5	328.1	318.6	325.7	213.3	160.2	150.5	104.8	104.8	97.6	100	71.3
63	497.9	389.2	377.6	370.5	330.5	318.6	328.1	213.3	162.6	152.9	104.8	104.8	97.6	100	71.3
63.25	498.1	391.8	380.1	373.1	330.7	321.2	330.7	215.9	162.8	153.1	105	105	97.8	102.6	71.5
63.5	498.3	392	382.6	373.3	333.2	323.8	330.9	218.5	165.4	155.8	105.2	105.2	98	102.8	71.7
63.75	497.9	396.2	384.6	375.2	332.8	325.7	332.8	218.1	167.4	155.4	104.8	104.8	100	102.4	71.3
64	500.4	396.4	387.1	375.4	335.4	325.9	335.4	220.7	167.6	158	105	105	97.8	102.6	71.5
64.25	500.4	398.8	389.4	377.8	337.8	328.3	335.4	220.7	170	160.4	105	105	100.2	102.6	73.9
64.5	500.6	399	392	380.3	338	330.9	338	223.3	172.7	160.6	105.2	105.2	100.4	102.8	71.7
64.75	503.1	401.5	392.2	380.5	340.5	331.1	340.5	223.5	172.9	163.2	105.4	105.4	100.6	103	74.3
65	502.9	403.6	394.3	382.6	340.3	333.2	340.3	223.3	175.1	163	105.2	105.2	100.4	102.8	74.1
65.25	502.9	406	396.6	382.6	342.7	333.2	342.7	225.7	175.1	165.4	105.2	105.2	100.4	102.8	74.1
65.5	505.1	406	399	385	342.7	335.6	345.1	225.7	177.5	165.4	105.2	105.2	100.4	102.8	74.1
65.75	505.1	406	399	385	345.1	335.6	345.1	225.7	179.9	167.8	107.6	105.2	100.4	102.8	74.1
66	505.1	408.3	401.3	385	345.1	338	347.4	228.1	179.9	167.8	107.6	105.2	100.4	102.8	74.1
66.25	505.1	410.6	401.3	387.3	347.4	340.3	349.8	230.5	182.3	170.2	107.6	105.2	100.4	105.2	74.1
66.5	505.3	410.8	403.8	389.8	350	340.5	350	230.7	182.5	170.4	107.8	105.4	100.6	103	74.3
66.75	504.9	410.4	405.8	389.4	349.6	342.5	351.9	232.8	184.5	172.5	107.4	105	100.2	105	73.9
67	504.9	412.7	405.8	389.4	351.9	342.5	351.9	232.8	186.9	172.5	107.4	105	102.6	102.6	73.9
67.25	507.2	412.7	408.1	391.8	354.3	344.9	354.3	232.8	189.4	174.9	107.4	105	102.6	105	73.9
67.5	507	414.9	407.9	391.6	354.1	344.7	354.1	235	189.2	177.1	107.2	104.8	102.4	104.8	73.7
67.75	509.5	415.1	410.4	394.1	356.6	347.2	356.6	235.2	191.8	177.3	107.4	105	102.6	105	76.3
68	509.3	417.2	410.2	393.9	356.4	349.4	356.4	235	191.6	179.5	107.2	104.8	102.4	104.8	76.1
68.25	508.7	416.6	411.9	395.6	358.2	348.8	355.8	236.8	193.4	178.9	106.6	104.2	101.8	104.2	75.5
68.5	511.4	419.3	412.3	396	358.6	351.5	358.6	237.2	196.2	181.7	109.4	104.6	102.2	104.6	75.9
68.75	511.6	417.2	414.9	398.6	361.1	354.1	361.1	239.8	196.4	181.9	109.6	104.8	102.4	104.8	76.1
69	511.6	417.2	417.2	398.6	361.1	354.1	361.1	239.8	198.8	184.3	109.6	104.8	102.4	104.8	76.1
69.25	511.8	417.4	417.4	398.8	361.3	356.6	361.3	240	201.4	186.9	109.8	105	102.6	105	76.3
69.5	512	417.6	417.6	401.3	361.5	356.8	363.9	242.6	201.6	187.1	110	105.2	102.8	105.2	76.5
69.75	514.3	417.6	419.9	401.3	363.9	359.2	363.9	242.6	204	189.6	112.4	105.2	102.8	105.2	76.5
70	514.1	417.4	419.7	403.4	363.7	359	363.7	244.8	203.8	189.4	112.2	105	102.6	105	76.3
70.25	513.9	419.5	421.8	403.2	365.8	361.1	365.8	244.6	206	191.6	112	104.8	102.4	104.8	76.1
70.5	514.1	419.7	422	403.4	366	363.7	366	244.8	208.7	191.8	112.2	107.4	102.6	105	76.3
70.75	514.1	419.7	422	405.8	366	363.7	366	244.8	208.7	194.2	112.2	105	105	105	76.3
71	513.9	421.8	424.1	405.6	365.8	363.5	368.2	247	210.9	194	114.4	104.8	104.8	104.8	76.1

71.25	513.9	421.8	424.1	407.9	368.2	365.8	368.2	247	210.9	196.4	114.4	104.8	102.4	104.8	76.1
71.5	513.9	421.8	424.1	407.9	368.2	365.8	370.5	249.4	213.3	196.4	114.4	107.2	102.4	104.8	78.5
71.75	513.9	424.1	424.1	407.9	370.5	365.8	370.5	249.4	213.3	198.8	116.8	107.2	104.8	104.8	78.5
72	516.4	424.3	426.7	410.4	370.7	368.4	373.1	249.6	215.9	201.4	117	105	105	105	78.7
72.25	516.6	424.5	426.9	410.6	370.9	370.9	373.3	249.8	216.1	201.6	119.6	105.2	105.2	105.2	78.9
72.5	516.6	424.5	426.9	410.6	373.3	370.9	373.3	252.2	218.5	204	119.6	107.6	105.2	105.2	78.9
72.75	516.6	426.9	429.2	410.6	373.3	370.9	375.6	254.6	220.9	204	119.6	105.2	105.2	105.2	78.9
73	516.6	429.2	429.2	412.9	375.6	373.3	375.6	254.6	220.9	206.4	122	105.2	105.2	105.2	78.9
73.25	516.4	429	429	412.7	375.4	373.1	375.4	254.4	223.1	206.2	121.8	107.4	105	105	78.7
73.5	516.6	429.2	431.5	412.9	375.6	375.6	378	254.6	223.3	208.9	122	107.6	105.2	105.2	78.9
73.75	516.6	429.2	431.5	415.3	378	375.6	378	257	225.7	208.9	124.4	107.6	105.2	105.2	78.9
74	516.6	431.5	431.5	415.3	378	378	378	257	225.7	211.3	124.4	107.6	105.2	105.2	78.9
74.25	516.8	431.7	431.7	415.5	380.5	378.2	378.2	259.6	228.3	211.5	124.6	107.8	105.4	105.4	79.1
74.5	516.6	431.5	431.5	415.3	380.3	378	380.3	259.4	230.5	213.7	126.8	107.6	105.2	105.2	78.9
74.75	516.8	434	434	415.5	380.5	380.5	380.5	259.6	230.7	213.9	127	107.8	105.4	105.4	79.1
75	516.8	434	434	417.8	382.8	380.5	382.8	262	230.7	216.3	129.4	107.8	105.4	107.8	79.1
75.25	516.6	433.8	433.8	417.6	382.6	382.6	382.6	261.8	233	216.1	129.2	107.6	105.2	105.2	78.9
75.5	516.8	436.3	434	417.8	382.8	382.8	382.8	262	235.6	218.7	131.8	107.8	105.4	107.8	79.1
75.75	514.1	435.9	435.9	417.4	384.8	382.4	382.4	261.6	235.2	218.3	131.4	107.4	105	105	78.7
76	514.1	435.9	435.9	419.7	384.8	384.8	384.8	264	237.6	220.7	133.9	107.4	105	107.4	81
76.25	513.9	435.7	435.7	419.5	384.6	384.6	384.6	263.8	237.4	220.5	133.7	107.2	104.8	107.2	80.8
76.5	513.9	438	435.7	419.5	386.9	384.6	384.6	266.2	239.8	222.9	136.1	107.2	104.8	107.2	78.5
76.75	513.9	438	435.7	419.5	386.9	384.6	386.9	266.2	239.8	222.9	136.1	107.2	104.8	107.2	78.5
77	513.9	438	438	419.5	389.2	386.9	386.9	266.2	242.2	225.3	136.1	107.2	104.8	107.2	80.8
77.25	513.9	438	438	419.5	389.2	386.9	389.2	266.2	242.2	225.3	140.9	109.6	104.8	107.2	80.8
77.5	511.8	438.2	438.2	422	389.4	389.4	389.4	268.8	244.8	227.9	141.1	109.8	105	107.4	81
77.75	513.5	439.9	437.6	421.4	391.2	388.8	388.8	268.2	244.2	227.3	142.9	109.2	104.4	106.8	80.4
78	511.4	440.1	437.8	421.6	391.4	389	391.4	268.4	246.8	229.9	143.1	109.4	104.6	107	80.6
78.25	511.4	440.1	437.8	421.6	391.4	389	391.4	268.4	246.8	229.9	143.1	109.4	104.6	107	80.6
78.5	511	439.7	437.4	423.5	391	391	391	270.4	248.8	232	145.1	109	104.2	106.6	80.2
78.75	511	439.7	437.4	423.5	393.3	391	391	270.4	248.8	232	145.1	109	104.2	106.6	80.2
79	511	439.7	437.4	423.5	393.3	391	391	272.8	251.2	232	147.5	109	104.2	106.6	80.2
79.25	511	442.1	439.7	423.5	393.3	391	391	272.8	251.2	234.4	149.9	109	104.2	106.6	80.2
79.5	511.2	442.3	439.9	423.7	395.8	393.5	393.5	273	253.8	234.6	150.1	111.6	104.4	109.2	80.4
79.75	511.2	442.3	439.9	423.7	395.8	393.5	393.5	273	253.8	237	152.5	111.6	104.4	109.2	80.4
80	511.2	442.3	439.9	426.1	395.8	393.5	393.5	273	253.8	237	152.5	111.6	104.4	109.2	80.4
80.25	511.4	442.5	440.1	423.9	396	393.7	393.7	275.6	256.4	239.6	152.7	111.8	104.6	109.4	80.6
80.5	511.2	444.6	439.9	423.7	398.2	395.8	395.8	275.4	258.6	239.4	155	111.6	104.4	109.2	80.4
80.75	511.2	444.6	439.9	426.1	398.2	395.8	395.8	277.7	258.6	239.4	157.4	111.6	104.4	109.2	80.4
81	511.2	444.6	439.9	426.1	398.2	395.8	395.8	277.7	258.6	241.8	157.4	111.6	104.4	109.2	80.4
81.25	511.2	444.6	442.3	426.1	398.2	395.8	395.8	277.7	261	241.8	157.4	111.6	104.4	109.2	82.8
81.5	511.4	444.8	442.5	426.3	400.7	398.4	398.4	277.9	261.2	242	160	111.8	104.6	109.4	83
81.75	511	446.7	442.1	428.2	400.3	398	398	279.9	260.8	244	162	113.8	104.2	109	82.6
82	511	446.7	442.1	425.9	400.3	398	398	279.9	263.2	244	162	113.8	104.2	109	82.6
82.25	511.2	446.9	442.3	428.4	400.5	398.2	398.2	280.1	263.4	246.6	164.6	111.6	104.4	109.2	80.4
82.5	511	446.7	442.1	428.2	402.6	400.3	400.3	279.9	265.6	246.4	164.4	113.8	106.6	109	82.6
82.75	511.4	447.1	444.8	428.6	403	400.7	400.7	282.7	266	246.8	164.8	114.2	104.6	111.8	83
83	511.6	447.3	445	428.8	403.2	400.9	400.9	282.9	268.6	249.4	167.4	114.4	104.8	109.6	83.2
83.25	511.8	447.5	445.2	429	403.4	403.4	401.1	283.1	268.8	249.6	167.6	114.6	105	112.2	83.4
83.5	509.5	447.5	445.2	429	403.4	403.4	401.1	283.1	268.8	249.6	170	114.6	105	112.2	83.4
83.75	511.8	447.5	445.2	429	405.8	403.4	403.4	283.1	271.2	252	170	114.6	105	112.2	83.4
84	509.5	449.8	445.2	429	405.8	403.4	403.4	285.5	271.2	252	172.5	114.6	105	112.2	83.4
84.25	509.5	449.8	445.2	431.3	405.8	403.4	403.4	285.5	273.6	252	172.5	117	107.4	112.2	83.4
84.5	509.3	449.6	445	431.1	405.6	403.2	403.2	285.3	273.4	254.2	174.7	114.4	104.8	112	83.2
84.75	509.3	449.6	445	431.1	407.9	405.6	403.2	285.3	273.4	254.2	174.7	116.8	104.8	112	83.2
85	509.5	449.8	445.2	431.3	408.1	405.8	405.8	287.9	276	254.4	177.3	117	105	112.2	83.4
85.25	509.5	449.8	447.5	431.3	408.1	405.8	405.8	287.9	276	256.8	177.3	117	105	112.2	83.4
85.5	509.5	449.8	447.5	433.6	408.1	405.8	405.8	287.9	278.3	256.8	179.7	117	105	114.6	83.4

85.75	509.5	449.8	447.5	433.6	408.1	405.8	405.8	287.9	278.3	256.8	179.7	117	107.4	114.6	85.8
86	509.7	450	447.7	433.8	408.3	408.3	408.3	288.1	278.5	259.4	182.3	117.2	105.2	114.8	86
86.25	509.7	450	447.7	433.8	408.3	408.3	408.3	290.5	280.9	259.4	182.3	117.2	107.6	114.8	86
86.5	509.7	452.3	447.7	433.8	410.6	408.3	408.3	290.5	280.9	259.4	182.3	119.6	105.2	114.8	86
86.75	509.7	452.3	447.7	433.8	410.6	408.3	408.3	290.5	280.9	261.8	184.7	119.6	105.2	114.8	86
87	507	451.9	447.3	435.7	410.2	410.2	410.2	290.1	282.9	261.4	186.7	119.2	107.2	114.4	85.6
87.25	507.2	452.1	447.5	435.9	410.4	410.4	410.4	292.7	283.1	261.6	186.9	119.4	107.4	114.6	85.8
87.5	507.2	452.1	447.5	435.9	412.7	410.4	410.4	292.7	285.5	261.6	189.4	119.4	107.4	117	85.8
87.75	507.2	452.1	449.8	435.9	412.7	410.4	410.4	295.1	285.5	264	189.4	119.4	107.4	117	85.8
88	507.2	452.1	449.8	435.9	410.4	410.4	410.4	295.1	285.5	264	191.8	119.4	107.4	117	85.8
88.25	507.2	452.1	449.8	435.9	410.4	410.4	410.4	295.1	287.9	264	191.8	121.8	107.4	117	85.8
88.5	507	451.9	449.6	438	412.5	412.5	410.2	294.9	287.7	266.2	191.6	121.6	107.2	116.8	85.6
88.75	507	451.9	449.6	438	412.5	412.5	412.5	294.9	287.7	266.2	194	121.6	107.2	116.8	85.6
89	507.2	452.1	449.8	438.2	412.7	412.7	412.7	295.1	287.9	266.4	194.2	121.8	107.4	117	85.8
89.25	504.9	452.1	449.8	438.2	412.7	412.7	412.7	297.4	290.3	268.8	196.6	121.8	107.4	117	85.8
89.5	505.1	454.6	450	438.4	412.9	412.9	415.3	297.6	290.5	269	196.8	122	107.6	119.6	86
89.75	505.3	452.5	452.5	438.6	413.1	413.1	415.5	297.8	290.7	269.2	197	122.2	107.8	119.8	86.2

Test 9

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	22	24.4	22	24.4	24.4	22	24.4	24.4	22	24.4	22	22	22	22	19.7
0.5	22	24.4	22	24.4	24.4	22	24.4	24.4	22	24.4	22	22	22	22	19.7
0.75	22	24.4	22	24.4	24.4	24.4	24.4	24.4	22	24.4	22	22	22	22	22
1	22	24.4	22	24.4	24.4	22	24.4	22	22	24.4	22	22	22	22	19.7
1.25	24.4	24.4	22	24.4	24.4	22	24.4	24.4	22	24.4	22	22	22	22	22
1.5	26.6	24.2	24.2	24.2	24.2	21.8	24.2	24.2	21.8	24.2	21.8	21.8	21.8	21.8	21.8
1.75	29.1	24.4	24.4	24.4	24.4	22	24.4	22	22	24.4	22	22	22	22	22
2	31.3	24.2	24.2	26.6	24.2	24.2	24.2	21.8	21.8	24.2	21.8	21.8	21.8	21.8	21.8
2.25	36.2	24.4	24.4	26.8	24.4	22	24.4	22	22	24.4	22	22	22	22	22
2.5	41	26.8	26.8	26.8	24.4	24.4	24.4	22	22	24.4	22	22	22	22	22
2.75	45.9	27	27	29.3	24.6	24.6	24.6	24.6	22.2	24.6	22.2	22.2	22.2	22.2	22.2
3	50.4	29.1	29.1	31.5	26.8	24.4	24.4	22	22	24.4	22	22	22	22	22
3.25	55	28.9	31.3	33.7	24.2	24.2	26.6	24.2	21.8	24.2	21.8	21.8	21.8	21.8	21.8
3.5	57.6	31.5	33.9	36.2	26.8	26.8	26.8	24.4	22	24.4	22	22	22	22	22
3.75	62.3	36.2	36.2	38.6	26.8	26.8	26.8	24.4	22	24.4	22	22	22	22	22
4	64.9	36.4	38.8	43.5	27	27	29.3	24.6	22.2	24.6	22.2	22.2	22.2	22.2	22.2
4.25	67.3	38.8	41.2	45.9	29.3	29.3	29.3	24.6	22.2	24.6	22.2	22.2	22.2	22.2	22.2
4.5	72.1	41.2	43.5	48.3	29.3	29.3	31.7	24.6	22.2	24.6	22.2	22.2	22.2	24.6	22.2
4.75	74.5	43.5	45.9	50.6	31.7	31.7	31.7	24.6	24.6	24.6	22.2	22.2	22.2	24.6	19.9
5	76.9	45.9	48.3	53	34.1	31.7	34.1	24.6	24.6	27	22.2	22.2	22.2	24.6	22.2
5.25	79.2	48.3	50.6	55.4	34.1	34.1	36.4	24.6	24.6	27	22.2	22.2	22.2	24.6	22.2
5.5	79.2	50.6	50.6	57.8	36.4	34.1	36.4	27	24.6	27	22.2	22.2	22.2	24.6	22.2
5.75	81.4	52.8	55.2	57.6	38.6	33.9	38.6	26.8	24.4	26.8	22	22	22	24.4	22
6	81.4	55.2	55.2	62.3	38.6	36.2	41	29.1	24.4	26.8	22	22	22	24.4	22
6.25	84	57.8	57.8	62.5	41.2	36.4	41.2	29.3	24.6	29.3	22.2	22.2	22.2	24.6	22.2
6.5	83.8	57.6	60	64.7	43.3	38.6	43.3	29.1	24.4	29.1	22	22	22	24.4	22
6.75	84	60.2	60.2	67.3	45.9	41.2	45.9	29.3	27	29.3	22.2	24.6	22.2	24.6	22.2
7	86.4	62.5	62.5	67.3	45.9	41.2	48.3	31.7	27	31.7	22.2	24.6	22.2	24.6	22.2
7.25	86.4	62.5	64.9	69.7	48.3	43.5	48.3	31.7	27	31.7	22.2	24.6	22.2	24.6	22.2
7.5	86.6	65.1	65.1	72.3	48.5	43.7	50.8	31.9	27.2	31.9	22.4	24.8	22.4	27.2	22.4
7.75	86.4	67.3	67.3	72.1	50.6	45.9	50.6	34.1	27	34.1	22.2	24.6	22.2	27	22.2
8	88.8	67.3	67.3	72.1	53	45.9	53	34.1	29.3	34.1	22.2	24.6	22.2	27	22.2
8.25	88.8	69.7	69.7	74.5	53	48.3	55.4	36.4	29.3	34.1	24.6	27	22.2	27	22.2
8.5	88.8	69.7	69.7	74.5	55.4	48.3	55.4	36.4	29.3	36.4	24.6	27	22.2	27	22.2
8.75	88.8	72.1	72.1	74.5	55.4	50.6	55.4	36.4	31.7	36.4	24.6	27	22.2	27	22.2
9	89	72.3	72.3	77.1	55.6	50.8	58	39	31.9	36.6	24.8	27.2	22.4	29.5	22.4
9.25	88.8	74.5	72.1	76.9	57.8	53	57.8	41.2	31.7	38.8	24.6	27	22.2	29.3	22.2
9.5	88.8	74.5	74.5	79.2	57.8	53	60.2	38.8	31.7	38.8	24.6	27	22.2	29.3	22.2
9.75	89	74.7	74.7	79.4	60.4	53.2	62.7	41.4	34.3	41.4	24.8	27.2	22.4	29.5	22.4
10	88.8	74.5	74.5	79.2	60.2	55.4	62.5	41.2	34.1	41.2	27	29.3	22.2	29.3	22.2
10.25	91.2	76.9	76.9	79.2	62.5	55.4	62.5	43.5	36.4	41.2	27	29.3	22.2	31.7	22.2
10.5	88.8	76.9	76.9	79.2	62.5	55.4	64.9	43.5	36.4	43.5	27	29.3	22.2	31.7	22.2
10.75	91.4	77.1	77.1	81.8	62.7	58	65.1	43.7	36.6	43.7	27.2	29.5	24.8	31.9	22.4
11	91.4	77.1	77.1	81.8	65.1	58	65.1	46.1	36.6	43.7	27.2	29.5	24.8	31.9	22.4
11.25	91.4	79.4	77.1	81.8	65.1	58	67.5	46.1	39	46.1	29.5	29.5	24.8	31.9	22.4
11.5	91.4	79.4	79.4	84.2	65.1	60.4	67.5	46.1	39	46.1	29.5	31.9	24.8	34.3	22.4
11.75	91.4	79.4	79.4	84.2	67.5	60.4	67.5	48.5	39	46.1	29.5	31.9	24.8	34.3	22.4
12	91.2	79.2	79.2	84	67.3	62.5	69.7	48.3	41.2	48.3	29.3	31.7	24.6	34.1	19.9
12.25	91	79	79	83.8	67.1	62.3	69.5	48.1	41	48.1	29.1	31.5	24.4	33.9	19.7
12.5	90.8	81.2	81.2	83.6	69.3	62.1	69.3	47.9	43.1	50.2	31.3	31.3	24.2	36	19.5
12.75	90.8	81.2	81.2	83.6	69.3	64.5	71.7	50.2	43.1	50.2	31.3	33.7	24.2	36	21.8
13	90.4	80.8	80.8	83.2	68.9	64.1	71.3	49.8	42.7	49.8	30.9	33.3	23.8	35.6	19.1

13.25	92.8	80.8	80.8	85.6	71.3	66.5	73.7	49.8	45.1	49.8	33.3	33.3	26.2	35.6	21.4
13.5	92.8	83.2	80.8	85.6	71.3	64.1	73.7	49.8	45.1	52.2	33.3	33.3	26.2	35.6	21.4
13.75	92.6	83	83	85.4	71.1	66.3	73.5	54.4	44.9	52	33.1	33.1	26	37.8	18.9
14	92.8	83.2	83.2	85.6	71.3	66.5	73.7	52.2	45.1	52.2	33.3	35.6	26.2	38	21.4
14.25	92.6	83	83	85.4	71.1	68.7	73.5	54.4	47.3	54.4	33.1	35.4	26	37.8	21.2
14.5	92.4	82.8	82.8	87.6	73.3	68.5	75.6	51.8	47.1	54.2	35.2	35.2	25.8	37.6	21
14.75	92.6	83	83	87.8	73.5	68.7	75.9	54.4	49.6	54.4	35.4	35.4	26	37.8	21.2
15	92.6	83	83	87.8	73.5	68.7	75.9	54.4	49.6	54.4	37.8	35.4	26	40.2	21.2
15.25	95.2	85.6	85.6	88	73.7	68.9	76.1	57	49.8	57	35.6	35.6	26.2	40.4	21.4
15.5	95	85.4	85.4	87.8	73.5	71.1	78.2	56.8	52	56.8	37.8	37.8	28.3	40.2	21.2
15.75	95	85.4	85.4	87.8	75.9	71.1	78.2	56.8	52	56.8	37.8	37.8	28.3	40.2	21.2
16	95.2	85.6	85.6	88	76.1	71.3	78.4	57	52.2	57	38	38	28.5	40.4	21.4
16.25	95.2	85.6	85.6	88	76.1	71.3	78.4	57	54.6	57	40.4	38	28.5	40.4	21.4
16.5	95.4	85.8	85.8	88.2	76.3	73.9	78.6	57.2	54.8	59.6	40.6	38.2	28.7	42.9	21.6
16.75	95.4	85.8	85.8	88.2	76.3	73.9	78.6	59.6	54.8	59.6	40.6	40.6	28.7	42.9	21.6
17	95.2	85.6	85.6	90.4	78.4	73.7	78.4	59.4	54.6	59.4	40.4	38	28.5	42.7	21.4
17.25	95.2	85.6	85.6	90.4	78.4	73.7	80.8	59.4	54.6	59.4	42.7	40.4	30.9	42.7	21.4
17.5	97.8	85.8	85.8	90.6	78.6	73.9	81	61.9	57.2	61.9	40.6	40.6	31.1	42.9	21.6
17.75	95.4	85.8	85.8	90.6	78.6	76.3	81	61.9	57.2	61.9	42.9	40.6	31.1	42.9	21.6
18	97.8	85.8	85.8	90.6	78.6	76.3	81	59.6	57.2	61.9	42.9	40.6	31.1	45.3	21.6
18.25	97.8	85.8	88.2	90.6	78.6	76.3	81	61.9	57.2	64.3	42.9	40.6	31.1	45.3	21.6
18.5	98.2	86.2	86.2	91	79	76.7	81.4	62.3	57.6	62.3	43.3	41	31.5	43.3	22
18.75	98.2	88.6	88.6	91	79	76.7	83.8	62.3	60	64.7	45.7	41	31.5	45.7	22
19	98.2	88.6	88.6	91	81.4	76.7	83.8	62.3	60	64.7	45.7	43.3	31.5	45.7	22
19.25	98.2	88.6	88.6	91	81.4	79	83.8	64.7	60	64.7	45.7	43.3	31.5	45.7	22
19.5	98.2	88.6	88.6	93.4	81.4	79	83.8	64.7	62.3	64.7	45.7	43.3	33.9	45.7	22
19.75	98.4	88.8	88.8	91.2	81.6	79.2	84	64.9	62.5	64.9	45.9	43.5	34.1	45.9	22.2
20	98.2	88.6	88.6	93.4	81.4	79	83.8	64.7	62.3	67.1	48.1	43.3	33.9	45.7	22
20.25	98.2	88.6	88.6	93.4	81.4	79	83.8	64.7	62.3	64.7	48.1	43.3	33.9	45.7	22
20.5	98.4	88.8	88.8	93.6	81.6	79.2	84	64.9	62.5	67.3	48.3	43.5	34.1	48.3	22.2
20.75	100.6	88.6	91	93.4	81.4	79	83.8	64.7	64.7	67.1	48.1	43.3	33.9	48.1	22
21	100.4	88.4	88.4	93.2	81.2	78.8	83.6	66.9	64.5	66.9	47.9	43.1	36	47.9	21.8
21.25	100.4	88.4	90.8	93.2	83.6	78.8	86	66.9	64.5	66.9	50.2	45.5	36	47.9	21.8
21.5	100.6	88.6	91	93.4	83.8	81.4	86.2	67.1	64.7	69.5	50.4	45.7	36.2	48.1	22
21.75	100.4	88.4	90.8	93.2	83.6	81.2	86	66.9	66.9	69.3	50.2	45.5	36	47.9	21.8
22	100.6	91	91	93.4	83.8	81.4	86.2	67.1	67.1	69.5	50.4	45.7	36.2	50.4	22
22.25	100.6	91	91	95.8	83.8	81.4	86.2	67.1	67.1	69.5	50.4	45.7	36.2	48.1	22
22.5	102.8	90.8	90.8	95.6	83.6	81.2	86	66.9	66.9	69.3	52.6	45.5	36	47.9	21.8
22.75	103	91	91	95.8	83.8	81.4	86.2	67.1	67.1	69.5	52.8	45.7	36.2	50.4	22
23	103	91	91	95.8	83.8	83.8	86.2	67.1	67.1	69.5	52.8	48.1	38.6	50.4	22
23.25	103	91	91	95.8	83.8	83.8	86.2	69.5	69.5	69.5	52.8	45.7	36.2	50.4	22
23.5	102.8	90.8	93.2	95.6	83.6	83.6	88.4	69.3	69.3	71.7	52.6	45.5	38.4	50.2	21.8
23.75	103	93.4	93.4	95.8	86.2	83.8	88.6	69.5	69.5	71.9	55.2	48.1	38.6	50.4	22
24	102.8	93.2	93.2	95.6	86	83.6	88.4	69.3	69.3	71.7	55	47.9	38.4	50.2	21.8
24.25	102.8	90.8	93.2	95.6	86	83.6	88.4	69.3	71.7	71.7	55	47.9	38.4	52.6	21.8
24.5	102.6	93	93	95.4	85.8	83.4	88.2	69.1	71.5	71.5	54.8	47.7	38.2	52.4	21.6
24.75	102.6	93	93	95.4	85.8	85.8	88.2	71.5	71.5	71.5	54.8	47.7	38.2	52.4	21.6
25	105	93	93	95.4	85.8	83.4	88.2	71.5	71.5	71.5	54.8	50	40.6	52.4	21.6
25.25	105	93	93	97.8	85.8	85.8	88.2	71.5	71.5	73.9	54.8	50	40.6	52.4	21.6
25.5	104.8	92.8	92.8	97.6	85.6	85.6	88	71.3	71.3	73.7	57	49.8	40.4	52.2	21.4
25.75	105	93	93	97.8	85.8	85.8	88.2	71.5	73.9	73.9	57.2	50	40.6	52.4	21.6
26	105	93	95.4	97.8	85.8	85.8	88.2	71.5	73.9	73.9	57.2	50	40.6	52.4	21.6
26.25	107.4	93	95.4	97.8	88.2	85.8	90.6	71.5	73.9	73.9	57.2	50	40.6	52.4	21.6
26.5	107.6	93.2	95.6	98	88.4	86	90.8	74.1	74.1	74.1	57.4	50.2	40.8	55	21.8
26.75	107.6	95.6	95.6	98	88.4	86	90.8	71.7	74.1	74.1	57.4	50.2	43.1	55	21.8
27	107.6	95.6	95.6	98	88.4	88.4	90.8	74.1	74.1	74.1	57.4	50.2	43.1	55	21.8
27.25	107.4	95.4	95.4	97.8	88.2	88.2	90.6	71.5	73.9	73.9	57.2	52.4	42.9	54.8	21.6
27.5	110	95.6	95.6	98	90.8	88.4	90.8	74.1	76.5	74.1	59.8	50.2	43.1	55	21.8

27.75	110	95.6	95.6	100.4	88.4	88.4	90.8	74.1	76.5	74.1	59.8	52.6	43.1	55	21.8
28	110	95.6	98	100.4	90.8	88.4	90.8	74.1	76.5	76.5	59.8	52.6	43.1	55	21.8
28.25	112.4	95.6	98	100.4	90.8	88.4	90.8	74.1	76.5	76.5	59.8	52.6	43.1	55	21.8
28.5	112.4	95.6	98	100.4	90.8	88.4	93.2	74.1	76.5	76.5	59.8	52.6	43.1	55	21.8
28.75	112.2	97.8	97.8	100.2	90.6	90.6	90.6	73.9	76.3	76.3	61.9	52.4	42.9	54.8	21.6
29	112.4	95.6	98	100.4	90.8	90.8	93.2	74.1	78.8	76.5	62.1	52.6	43.1	55	21.8
29.25	112.2	97.8	97.8	100.2	90.6	90.6	90.6	73.9	78.6	76.3	61.9	52.4	45.3	54.8	21.6
29.5	114.8	98	98	100.4	90.8	90.8	90.8	76.5	78.8	76.5	62.1	52.6	45.5	57.4	21.8
29.75	114.8	98	98	100.4	90.8	90.8	90.8	74.1	78.8	78.8	62.1	52.6	45.5	57.4	21.8
30	117.2	98	98	100.4	90.8	90.8	93.2	76.5	78.8	76.5	62.1	52.6	45.5	57.4	21.8
30.25	119.8	98.2	98.2	103	91	91	93.4	76.7	79	76.7	62.3	52.8	45.7	55.2	22
30.5	119.8	98.2	100.6	100.6	93.4	91	93.4	76.7	79	76.7	62.3	52.8	45.7	57.6	22
30.75	119.8	98.2	100.6	103	93.4	93.4	93.4	76.7	79	79	64.7	52.8	48.1	55.2	22
31	122.2	100.6	100.6	103	93.4	93.4	93.4	76.7	81.4	79	64.7	55.2	45.7	57.6	22
31.25	122.4	100.8	100.8	103.2	93.6	93.6	93.6	76.9	81.6	79.2	64.9	55.4	45.9	57.8	22.2
31.5	124.8	100.8	100.8	103.2	93.6	93.6	93.6	76.9	81.6	79.2	64.9	55.4	48.3	57.8	22.2
31.75	124.8	100.8	100.8	103.2	93.6	93.6	93.6	79.2	81.6	79.2	64.9	55.4	45.9	57.8	22.2
32	127	100.6	100.6	103	95.8	93.4	93.4	76.7	81.4	79	64.7	55.2	48.1	57.6	22
32.25	126.8	100.4	100.4	102.8	93.2	93.2	95.6	76.5	81.2	78.8	64.5	55	47.9	57.4	21.8
32.5	129.2	100.4	102.8	102.8	95.6	93.2	95.6	76.5	81.2	78.8	64.5	55	47.9	57.4	21.8
32.75	129.2	102.8	100.4	102.8	95.6	93.2	95.6	78.8	83.6	78.8	64.5	55	47.9	57.4	21.8
33	131.7	102.8	100.4	105.2	95.6	95.6	95.6	78.8	83.6	78.8	64.5	55	47.9	57.4	21.8
33.25	131.7	102.8	100.4	105.2	95.6	95.6	95.6	78.8	83.6	81.2	66.9	55	47.9	57.4	21.8
33.5	133.9	102.6	102.6	105	95.4	95.4	95.4	76.3	83.4	81	66.7	54.8	47.7	57.2	21.6
33.75	136.3	102.6	102.6	105	97.8	95.4	95.4	78.6	83.4	78.6	66.7	57.2	47.7	59.6	21.6
34	138.7	102.6	102.6	105	97.8	95.4	95.4	78.6	83.4	81	66.7	54.8	47.7	59.6	19.3
34.25	141.1	102.6	102.6	105	97.8	95.4	97.8	81	83.4	81	66.7	57.2	50	59.6	19.3
34.5	140.9	102.4	102.4	104.8	97.6	95.2	97.6	78.4	85.6	80.8	66.5	57	49.8	59.4	21.4
34.75	140.9	102.4	102.4	107.2	97.6	95.2	97.6	80.8	85.6	80.8	66.5	57	49.8	59.4	21.4
35	143.3	102.4	102.4	107.2	97.6	95.2	97.6	80.8	85.6	80.8	66.5	57	49.8	59.4	21.4
35.25	143.3	102.4	102.4	107.2	97.6	95.2	97.6	78.4	85.6	80.8	68.9	57	49.8	59.4	21.4
35.5	145.7	104.8	102.4	107.2	97.6	97.6	97.6	78.4	85.6	80.8	68.9	57	49.8	59.4	21.4
35.75	148.1	104.8	102.4	107.2	97.6	97.6	97.6	80.8	85.6	80.8	68.9	57	49.8	59.4	21.4
36	148.3	102.6	102.6	109.8	97.8	97.8	97.8	81	88.2	81	69.1	57.2	50	59.6	21.6
36.25	150.7	105	105	109.8	100.2	97.8	97.8	81	88.2	81	69.1	57.2	50	59.6	21.6
36.5	153.2	105	105	109.8	100.2	97.8	97.8	81	88.2	81	69.1	57.2	50	61.9	21.6
36.75	155.8	105.2	105.2	112.4	100.4	98	98	81.2	88.4	83.6	69.3	57.4	50.2	62.1	21.8
37	158	105	105	112.2	100.2	97.8	97.8	83.4	88.2	83.4	69.1	57.2	50	59.6	21.6
37.25	160.2	107.2	107.2	112	100	97.6	100	80.8	88	83.2	68.9	57	52.2	61.7	21.4
37.5	162.8	107.4	107.4	114.6	100.2	97.8	100.2	81	88.2	83.4	69.1	57.2	52.4	61.9	21.6
37.75	165.2	107.4	107.4	114.6	100.2	97.8	100.2	81	88.2	83.4	69.1	57.2	52.4	61.9	21.6
38	167.6	107.4	109.8	117	102.6	97.8	100.2	83.4	90.6	83.4	71.5	57.2	52.4	61.9	21.6
38.25	169.9	109.6	109.6	116.8	100	100	100	83.2	90.4	83.2	71.3	57	52.2	61.7	19.1
38.5	172.3	109.6	112	116.8	102.4	100	100	83.2	90.4	83.2	71.3	59.4	52.2	61.7	21.4
38.75	174.7	112	112	119.2	102.4	100	100	83.2	90.4	83.2	71.3	57	52.2	61.7	21.4
39	174.5	111.8	111.8	121.4	102.2	99.8	99.8	83	90.2	83	71.1	59.2	52	61.5	21.2
39.25	176.9	111.8	114.2	121.4	102.2	99.8	99.8	85.4	90.2	83	71.1	59.2	52	61.5	21.2
39.5	179.5	114.4	114.4	124	102.4	100	100	83.2	92.8	85.6	71.3	59.4	52.2	61.7	21.4
39.75	181.9	114.4	116.8	124	102.4	100	102.4	83.2	92.8	85.6	71.3	59.4	52.2	61.7	21.4
40	184.3	116.8	116.8	124	102.4	100	102.4	85.6	92.8	85.6	73.7	59.4	54.6	61.7	21.4
40.25	186.8	116.8	116.8	126.4	102.4	100	102.4	85.6	92.8	85.6	73.7	59.4	52.2	64.1	21.4
40.5	187	117	119.4	129	102.6	100.2	102.6	85.8	93	85.8	73.9	59.6	54.8	64.3	21.6
40.75	189.4	119.4	121.8	129	102.6	100.2	102.6	85.8	93	85.8	73.9	59.6	54.8	61.9	21.6
41	191.8	119.4	121.8	131.5	102.6	100.2	102.6	85.8	93	85.8	73.9	61.9	54.8	64.3	21.6
41.25	194.2	121.8	121.8	133.9	102.6	100.2	102.6	85.8	93	85.8	73.9	61.9	54.8	64.3	21.6
41.5	196.6	121.8	124.2	133.9	102.6	100.2	102.6	88.2	93	85.8	73.9	61.9	54.8	64.3	21.6
41.75	199.2	124.4	126.8	136.5	102.8	100.4	102.8	86	93.2	86	74.1	62.1	55	64.5	21.8
42	199	124.2	126.6	136.3	102.6	100.2	102.6	88.2	93	88.2	73.9	61.9	54.8	64.3	21.6

42.25	201.6	126.8	129.2	138.9	102.8	100.4	102.8	88.4	95.6	86	74.1	62.1	55	64.5	21.8
42.5	201.6	126.8	129.2	141.3	102.8	100.4	102.8	88.4	95.6	88.4	74.1	62.1	55	64.5	21.8
42.75	204	129.2	131.7	143.7	102.8	100.4	102.8	88.4	95.6	88.4	74.1	62.1	55	64.5	21.8
43	206.5	131.7	134.1	143.7	102.8	100.4	102.8	88.4	95.6	88.4	74.1	62.1	57.4	64.5	21.8
43.25	209.1	131.9	134.3	146.3	103	100.6	103	88.6	95.8	88.6	74.3	62.3	55.2	64.7	22
43.5	209.1	131.9	136.7	146.3	105.4	100.6	103	88.6	95.8	88.6	76.7	62.3	55.2	64.7	22
43.75	211.5	134.3	139.1	148.7	105.4	100.6	103	88.6	95.8	88.6	76.7	62.3	55.2	64.7	22
44	211.5	136.7	139.1	151.1	105.4	100.6	103	91	95.8	88.6	76.7	62.3	57.6	64.7	22
44.25	213.9	139.1	141.5	151.1	105.4	103	103	91	95.8	88.6	76.7	62.3	57.6	64.7	22
44.5	216.3	139.1	141.5	153.6	105.4	100.6	105.4	91	95.8	88.6	76.7	62.3	57.6	64.7	22
44.75	218.7	141.5	143.9	156	105.4	103	105.4	91	98.2	88.6	76.7	64.7	55.2	64.7	22
45	218.7	141.5	146.3	158.4	107.8	103	105.4	91	98.2	88.6	76.7	62.3	55.2	64.7	22
45.25	221.1	143.9	146.3	158.4	107.8	103	105.4	91	98.2	88.6	76.7	62.3	57.6	64.7	22
45.5	223.5	146.3	148.7	160.8	107.8	103	105.4	93.4	98.2	91	76.7	64.7	57.6	67.1	22
45.75	225.9	148.7	151.1	163.2	107.8	103	107.8	91	98.2	91	76.7	62.3	55.2	67.1	22
46	225.5	148.3	153.2	162.8	109.8	102.6	107.4	93	97.8	90.6	76.3	64.3	57.2	66.7	19.3
46.25	227.9	150.7	153.2	165.2	109.8	105	107.4	93	97.8	90.6	78.6	64.3	57.2	66.7	21.6
46.5	230.4	153.2	155.6	167.6	109.8	105	109.8	95.4	97.8	90.6	78.6	64.3	57.2	66.7	21.6
46.75	232.6	155.4	157.8	169.9	112	104.8	109.6	92.8	97.6	90.4	78.4	64.1	57	66.5	19.1
47	232.6	155.4	160.2	169.9	112	104.8	109.6	92.8	97.6	90.4	78.4	64.1	57	66.5	19.1
47.25	234.8	157.6	160	172.1	111.8	107	111.8	95	97.4	92.6	78.2	63.9	56.8	66.3	18.9
47.5	237.2	160	162.4	174.5	114.2	107	111.8	95	97.4	92.6	78.2	63.9	56.8	66.3	18.9
47.75	239.8	160.2	165	177.1	114.4	107.2	112	95.2	97.6	92.8	80.8	64.1	57	66.5	21.4
48	239.8	162.6	167.4	179.5	116.8	107.2	114.4	95.2	97.6	92.8	78.4	64.1	57	66.5	21.4
48.25	242.2	165	169.9	181.9	116.8	109.6	114.4	95.2	97.6	92.8	78.4	64.1	57	68.9	21.4
48.5	244.4	167.2	169.7	181.7	116.6	109.4	116.6	95	99.8	92.6	78.2	63.9	56.8	66.3	21.2
48.75	247	169.9	172.3	184.3	119.2	112	116.8	95.2	97.6	92.8	80.8	66.5	59.4	66.5	21.4
49	249.4	169.9	174.7	186.8	119.2	112	119.2	95.2	100	92.8	80.8	64.1	59.4	66.5	21.4
49.25	251.8	172.3	177.1	189.2	121.6	112	119.2	97.6	100	92.8	80.8	66.5	59.4	68.9	21.4
49.5	254.2	174.7	177.1	191.6	121.6	112	121.6	97.6	100	92.8	80.8	66.5	59.4	68.9	21.4
49.75	254	176.9	179.3	191.4	123.8	114.2	121.4	95	99.8	92.6	80.6	66.3	59.2	68.7	21.2
50	256.6	179.5	181.9	194	124	116.8	124	97.6	100	92.8	80.8	66.5	59.4	68.9	21.4
50.25	259	179.5	184.3	196.4	126.4	116.8	124	97.6	100	95.2	80.8	66.5	59.4	68.9	21.4
50.5	261.6	182.1	187	199	126.6	117	126.6	97.8	100.2	95.4	81	66.7	61.9	69.1	21.6
50.75	264.2	184.7	189.6	201.6	129.2	119.6	126.8	98	100.4	95.6	83.6	66.9	59.8	69.3	21.8
51	266.4	187	191.8	203.8	131.5	119.4	129	97.8	100.2	95.4	81	66.7	59.6	69.1	21.6
51.25	268.8	189.4	194.2	203.8	131.5	121.8	131.5	97.8	100.2	95.4	83.4	66.7	59.6	69.1	21.6
51.5	271.2	189.4	194.2	206.3	131.5	121.8	131.5	100.2	100.2	95.4	83.4	66.7	61.9	69.1	21.6
51.75	273	193.6	196	208.1	133.3	121.2	133.3	97.2	99.6	94.8	82.8	66.1	61.3	68.5	18.7
52	275.5	193.8	198.6	210.7	133.5	123.8	133.5	99.8	99.8	95	83	66.3	61.5	68.7	21.2
52.25	277.9	196.2	201	213.1	135.9	126.2	135.9	97.4	99.8	97.4	83	66.3	61.5	68.7	18.9
52.5	280.1	198.4	203.2	215.3	138.1	126	138.1	99.6	102	97.2	82.8	66.1	61.3	68.5	18.7
52.75	284.9	200.8	205.7	217.7	140.5	128.4	138.1	99.6	102	97.2	82.8	68.5	61.3	68.5	21
53	287.3	203.2	208.1	217.7	140.5	128.4	140.5	99.6	99.6	97.2	82.8	68.5	61.3	70.9	21
53.25	287.5	205.9	208.3	222.7	143.1	131.1	140.7	99.8	102.2	97.4	83	68.7	61.5	71.1	21.2

Test 10

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	22	24.4	22	22	22	22	22	22	22	22	22	22	22	22	22
0.5	21.8	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
0.75	22	24.4	22	22	22	22	22	24.4	22	22	22	22	22	22	22
1	21.8	24.2	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1.25	21.8	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1.5	21.8	24.2	24.2	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1.75	21.8	24.2	24.2	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2	24	24	24	24	24	21.6	21.6	24	21.6	21.6	21.6	21.6	21.6	21.6	21.6
2.25	24.4	24.4	24.4	24.4	24.4	22	22	22	22	22	22	22	22	22	22
2.5	26.6	26.6	24.2	24.2	24.2	21.8	21.8	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.75	28.9	26.6	26.6	24.2	21.8	21.8	21.8	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8
3	31.3	26.6	26.6	24.2	24.2	21.8	21.8	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8
3.25	31.1	26.4	26.4	26.4	24	21.6	24	24	21.6	21.6	21.6	21.6	21.6	21.6	21.6
3.5	33.7	28.9	28.9	26.6	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
3.75	36	28.9	31.3	26.6	24.2	24.2	24.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
4	38.6	31.5	31.5	29.1	26.8	22	24.4	24.4	22	22	22	22	22	22	22
4.25	41	33.9	33.9	29.1	26.8	24.4	24.4	24.4	22	22	22	22	22	22	22
4.5	43.3	33.9	33.9	31.5	26.8	24.4	24.4	24.4	22	22	22	22	22	22	22
4.75	45.9	36.4	36.4	31.7	29.3	24.6	24.6	24.6	22.2	22.2	22.2	22.2	22.2	22.2	22.2
5	45.7	36.2	36.2	33.9	29.1	24.4	24.4	24.4	22	22	22	22	22	22	22
5.25	48.5	39	39	36.6	29.5	24.8	27.2	24.8	22.4	22.4	22.4	22.4	22.4	22.4	22.4
5.5	50.8	39	39	36.6	31.9	27.2	27.2	27.2	22.4	22.4	22.4	22.4	22.4	22.4	22.4
5.75	50.8	39	41.4	36.6	31.9	27.2	27.2	27.2	22.4	22.4	22.4	22.4	22.4	22.4	22.4
6	53	41.2	43.5	38.8	31.7	27	27	27	22.2	22.2	22.2	22.2	22.2	22.2	22.2
6.25	55.6	43.7	43.7	41.4	34.3	27.2	27.2	27.2	22.4	22.4	22.4	22.4	22.4	22.4	22.4
6.5	55.4	43.5	45.9	41.2	34.1	29.3	29.3	27	22.2	22.2	22.2	22.2	22.2	22.2	22.2
6.75	57.8	45.9	45.9	43.5	36.4	29.3	29.3	29.3	22.2	22.2	22.2	22.2	22.2	22.2	22.2
7	57.8	45.9	48.3	43.5	36.4	31.7	29.3	27	22.2	22.2	22.2	22.2	22.2	22.2	22.2
7.25	60.4	48.5	48.5	46.1	39	31.9	29.5	27.2	22.4	22.4	22.4	22.4	22.4	22.4	22.4
7.5	62.9	48.7	51	46.3	39.2	32.1	32.1	29.7	22.6	25	22.6	22.6	22.6	22.6	22.6
7.75	62.5	48.3	50.6	48.3	41.2	34.1	31.7	29.3	22.2	24.6	22.2	22.2	22.2	22.2	22.2
8	64.9	50.6	53	48.3	41.2	34.1	34.1	31.7	22.2	22.2	22.2	22.2	22.2	22.2	22.2
8.25	65.1	53.2	53.2	50.8	43.7	34.3	34.3	31.9	22.4	24.8	22.4	22.4	22.4	22.4	22.4
8.5	67.5	53.2	55.6	50.8	43.7	34.3	36.6	31.9	22.4	24.8	22.4	22.4	22.4	22.4	22.4
8.75	67.5	53.2	55.6	53.2	43.7	36.6	36.6	31.9	22.4	24.8	22.4	22.4	22.4	22.4	22.4
9	67.3	55.4	55.4	53	45.9	36.4	36.4	34.1	24.6	24.6	22.2	22.2	22.2	22.2	22.2
9.25	67.3	55.4	57.8	55.4	45.9	38.8	36.4	34.1	24.6	24.6	22.2	22.2	22.2	22.2	22.2
9.5	69.9	55.6	58	55.6	48.5	39	39	34.3	24.8	27.2	22.4	22.4	22.4	22.4	22.4
9.75	69.9	58	58	55.6	48.5	39	39	36.6	24.8	27.2	22.4	22.4	22.4	22.4	22.4
10	72.3	58	60.4	58	50.8	41.4	41.4	36.6	24.8	27.2	22.4	24.8	22.4	22.4	22.4
10.25	72.1	60.2	60.2	57.8	50.6	41.2	41.2	36.4	24.6	27	22.2	24.6	22.2	22.2	22.2
10.5	72.3	60.4	62.7	58	50.8	41.4	41.4	36.6	27.2	27.2	22.4	22.4	22.4	22.4	22.4
10.75	72.3	62.7	62.7	60.4	53.2	43.7	41.4	39	27.2	27.2	22.4	24.8	22.4	24.8	22.4
11	72.5	62.9	62.9	60.6	53.4	43.9	43.9	39.2	27.4	29.7	22.6	25	22.6	25	22.6
11.25	74.5	62.5	64.9	62.5	53	43.5	43.5	38.8	27	29.3	22.2	24.6	22.2	24.6	22.2
11.5	74.7	65.1	65.1	62.7	55.6	46.1	46.1	41.4	27.2	29.5	22.4	24.8	22.4	24.8	22.4
11.75	74.5	64.9	64.9	62.5	55.4	45.9	45.9	41.2	27	31.7	22.2	24.6	22.2	24.6	22.2
12	74.7	65.1	65.1	65.1	58	46.1	46.1	41.4	27.2	31.9	22.4	24.8	22.4	24.8	22.4
12.25	76.9	64.9	67.3	64.9	57.8	48.3	48.3	43.5	29.3	31.7	24.6	24.6	22.2	24.6	22.2
12.5	76.9	67.3	67.3	64.9	57.8	48.3	48.3	43.5	29.3	31.7	24.6	24.6	22.2	24.6	22.2
12.75	76.9	67.3	67.3	67.3	57.8	48.3	48.3	43.5	29.3	31.7	24.6	27	22.2	24.6	22.2
13	76.9	67.3	67.3	67.3	60.2	48.3	50.6	43.5	29.3	34.1	24.6	24.6	22.2	24.6	22.2

13.25	76.9	67.3	69.7	67.3	60.2	50.6	50.6	45.9	31.7	34.1	24.6	27	22.2	27	22.2
13.5	79.4	67.5	69.9	67.5	60.4	50.8	50.8	46.1	31.9	34.3	24.8	27.2	22.4	27.2	24.8
13.75	79.4	69.9	69.9	67.5	62.7	50.8	50.8	46.1	31.9	36.6	27.2	27.2	22.4	27.2	22.4
14	79	69.5	71.9	67.1	62.3	52.8	50.4	45.7	31.5	36.2	26.8	26.8	22	26.8	24.4
14.25	79.2	69.7	72.1	69.7	62.5	53	53	45.9	34.1	36.4	24.6	27	22.2	27	22.2
14.5	79.4	69.9	72.3	69.9	62.7	53.2	53.2	46.1	34.3	36.6	27.2	27.2	24.8	27.2	24.8
14.75	81.8	72.3	72.3	69.9	65.1	53.2	53.2	48.5	34.3	36.6	27.2	27.2	24.8	27.2	24.8
15	81.8	72.3	72.3	72.3	65.1	55.6	55.6	48.5	34.3	36.6	27.2	27.2	24.8	27.2	24.8
15.25	81.6	72.1	74.5	72.1	64.9	55.4	55.4	48.3	34.1	38.8	27	27	24.6	29.3	24.6
15.5	81.6	72.1	74.5	72.1	64.9	55.4	55.4	48.3	34.1	38.8	27	29.3	24.6	29.3	24.6
15.75	81.8	72.3	74.7	72.3	65.1	58	55.6	50.8	36.6	39	27.2	29.5	24.8	29.5	24.8
16	81.8	72.3	74.7	72.3	67.5	58	55.6	50.8	36.6	41.4	27.2	29.5	24.8	29.5	24.8
16.25	84.2	74.7	74.7	72.3	67.5	58	55.6	50.8	36.6	41.4	29.5	29.5	24.8	29.5	24.8
16.5	84.2	74.7	77.1	74.7	67.5	58	58	50.8	36.6	41.4	29.5	29.5	24.8	29.5	24.8
16.75	84.2	74.7	77.1	74.7	67.5	58	55.6	50.8	36.6	41.4	29.5	29.5	24.8	29.5	24.8
17	84.2	74.7	77.1	74.7	67.5	58	58	50.8	39	41.4	29.5	29.5	24.8	29.5	24.8
17.25	86.6	74.7	79.4	74.7	69.9	60.4	58	53.2	39	43.7	31.9	29.5	24.8	29.5	24.8
17.5	86.6	77.1	79.4	77.1	69.9	60.4	60.4	53.2	39	43.7	31.9	29.5	24.8	31.9	24.8
17.75	88.8	76.9	79.2	76.9	69.7	60.2	60.2	53	38.8	43.5	31.7	29.3	24.6	31.7	24.6
18	89	77.1	81.8	77.1	69.9	62.7	60.4	53.2	41.4	43.7	31.9	29.5	27.2	31.9	24.8
18.25	91.4	79.4	81.8	77.1	72.3	62.7	62.7	53.2	41.4	43.7	31.9	31.9	27.2	31.9	24.8
18.5	91.4	79.4	81.8	79.4	72.3	62.7	60.4	55.6	41.4	46.1	34.3	31.9	27.2	31.9	24.8
18.75	91.6	79.6	82	79.6	72.5	62.9	62.9	55.8	41.6	46.3	34.5	32.1	27.4	32.1	25
19	91.6	79.6	84.4	79.6	72.5	65.3	62.9	55.8	41.6	46.3	34.5	32.1	27.4	32.1	25
19.25	91.8	79.8	84.6	82.2	75.1	65.5	63.1	56	41.8	46.5	34.7	32.3	27.6	34.7	25.2
19.5	91.4	79.4	84.2	81.8	74.7	65.1	65.1	55.6	43.7	46.1	34.3	31.9	27.2	34.3	24.8
19.75	91.8	82.2	84.6	82.2	75.1	65.5	65.5	56	44.1	46.5	34.7	32.3	27.6	34.7	25.2
20	91.6	82	84.4	82	74.9	67.7	65.3	58.2	43.9	48.7	36.8	32.1	27.4	34.5	25
20.25	91.8	82.2	87	82.2	75.1	67.9	65.5	58.4	44.1	48.9	37	32.3	27.6	34.7	25.2
20.5	94	82	86.8	82	77.3	67.7	65.3	58.2	46.3	48.7	36.8	34.5	27.4	34.5	25
20.75	94	82	86.8	84.4	77.3	67.7	67.7	58.2	46.3	48.7	36.8	34.5	27.4	34.5	25
21	94	82	86.8	82	77.3	70.1	67.7	58.2	46.3	51	36.8	34.5	29.7	34.5	25
21.25	94.2	84.6	87	84.6	77.5	70.3	67.9	58.4	46.5	51.2	37	34.7	29.9	34.7	25.2
21.5	94.2	84.6	89.4	84.6	77.5	70.3	67.9	58.4	46.5	51.2	37	34.7	29.9	34.7	25.2
21.75	94	84.4	89.2	84.4	79.6	70.1	67.7	60.6	48.7	51	39.2	34.5	29.7	36.8	25
22	94.2	84.6	89.4	84.6	79.8	72.7	70.3	60.8	46.5	51.2	39.4	34.7	29.9	37	25.2
22.25	94.2	84.6	89.4	84.6	79.8	72.7	70.3	60.8	48.9	53.6	39.4	37	29.9	37	25.2
22.5	96.8	84.8	89.6	84.8	80	72.9	70.5	61	49.1	53.8	39.6	37.2	30.1	37.2	25.4
22.75	96.6	84.6	89.4	84.6	79.8	72.7	70.3	60.8	48.9	53.6	39.4	37	29.9	37	27.6
23	96.6	84.6	89.4	87	79.8	72.7	70.3	60.8	48.9	53.6	41.8	37	29.9	37	27.6
23.25	96.6	87	89.4	87	82.2	75.1	70.3	63.1	51.2	53.6	41.8	37	29.9	37	27.6
23.5	96.6	87	89.4	87	79.8	75.1	72.7	63.1	51.2	53.6	41.8	37	32.3	37	27.6
23.75	96.6	87	89.4	87	82.2	75.1	72.7	60.8	51.2	56	41.8	37	32.3	37	27.6
24	96.6	87	91.8	87	82.2	75.1	72.7	63.1	51.2	56	41.8	37	32.3	39.4	27.6
24.25	96.8	87.2	92	87.2	82.4	75.3	72.9	63.3	51.4	56.2	44.3	37.2	32.5	39.6	25.4
24.5	99	87	91.8	87	82.2	75.1	72.7	63.1	51.2	56	41.8	39.4	32.3	39.4	27.6
24.75	99	87	91.8	87	82.2	77.5	72.7	63.1	53.6	56	44.1	39.4	32.3	39.4	27.6
25	99	87	91.8	89.4	82.2	77.5	75.1	65.5	53.6	56	44.1	37	32.3	39.4	27.6
25.25	98.8	86.8	91.6	89.2	82	77.3	74.9	62.9	53.4	55.8	43.9	39.2	32.1	39.2	27.4
25.5	98.6	89	91.4	89	81.8	77.1	72.3	62.7	53.2	55.6	43.7	39	31.9	39	27.2
25.75	98.6	89	93.8	89	81.8	77.1	74.7	65.1	53.2	58	43.7	39	34.3	39	27.2
26	98.8	89.2	91.6	89.2	84.4	77.3	74.9	65.3	53.4	58.2	46.3	39.2	32.1	39.2	27.4
26.25	99	89.4	91.8	89.4	84.6	77.5	75.1	65.5	56	58.4	46.5	39.4	34.7	41.8	27.6
26.5	99.2	89.6	94.4	89.6	84.8	80	75.3	65.7	56.2	58.6	46.7	39.6	34.9	42	27.8
26.75	99.2	89.6	92	89.6	84.8	80	75.3	65.7	56.2	58.6	46.7	39.6	34.9	42	27.8
27	99	89.4	91.8	89.4	84.6	79.8	77.5	65.5	56	58.4	46.5	39.4	34.7	41.8	27.6
27.25	101.2	89.2	91.6	89.2	84.4	79.6	74.9	65.3	55.8	58.2	46.3	41.6	34.5	41.6	27.4
27.5	101.4	89.4	94.2	89.4	84.6	79.8	77.5	67.9	56	60.8	46.5	41.8	34.7	41.8	27.6

27.75	101.4	89.4	91.8	89.4	84.6	79.8	77.5	67.9	58.4	60.8	46.5	41.8	34.7	41.8	27.6
28	101.4	89.4	94.2	89.4	84.6	79.8	77.5	67.9	56	60.8	48.9	41.8	34.7	41.8	27.6
28.25	101.4	89.4	94.2	89.4	84.6	79.8	77.5	67.9	56	60.8	48.9	41.8	34.7	41.8	29.9
28.5	101.4	89.4	94.2	89.4	87	79.8	77.5	67.9	58.4	60.8	48.9	41.8	37	41.8	27.6
28.75	101.4	91.8	94.2	91.8	87	82.2	77.5	67.9	58.4	63.1	48.9	41.8	37	44.1	27.6
29	101.6	89.6	94.4	92	87.2	82.4	77.7	68.1	58.6	63.3	49.1	42	37.2	44.3	30.1
29.25	101.6	89.6	94.4	92	87.2	82.4	77.7	68.1	58.6	63.3	49.1	42	37.2	44.3	27.8
29.5	101.8	92.2	94.6	92.2	87.4	82.6	77.9	68.3	58.8	63.5	51.7	44.5	37.4	44.5	30.3
29.75	101.6	92	94.4	92	87.2	82.4	77.7	68.1	58.6	63.3	49.1	44.3	37.2	44.3	30.1
30	104	92	94.4	92	87.2	82.4	80	68.1	58.6	63.3	51.4	44.3	37.2	44.3	30.1
30.25	104.2	92.2	94.6	92.2	87.4	82.6	80.2	68.3	61.2	63.5	51.7	44.5	37.4	44.5	30.3
30.5	104	92	94.4	92	87.2	82.4	80	70.5	61	63.3	51.4	44.3	37.2	44.3	30.1
30.75	104.2	92.2	94.6	92.2	87.4	82.6	80.2	70.7	61.2	65.9	51.7	44.5	37.4	46.9	30.3
31	104.2	92.2	94.6	92.2	87.4	85	80.2	70.7	61.2	65.9	51.7	44.5	37.4	46.9	30.3
31.25	104.2	92.2	94.6	92.2	89.8	85	80.2	70.7	61.2	65.9	54	46.9	37.4	46.9	30.3
31.5	104.2	94.6	97	92.2	89.8	85	82.6	73.1	63.5	65.9	54	44.5	39.8	46.9	30.3
31.75	104.2	92.2	97	94.6	89.8	85	80.2	73.1	63.5	65.9	54	44.5	39.8	46.9	30.3
32	104.4	94.8	94.8	94.8	90	85.2	82.8	70.9	63.7	66.1	54.2	44.7	40	47.1	30.5
32.25	104.2	94.6	97	94.6	89.8	85	82.6	73.1	63.5	65.9	54	46.9	39.8	46.9	30.3
32.5	104	94.4	96.8	94.4	89.6	84.8	80	70.5	63.3	65.7	53.8	46.7	39.6	46.7	30.1
32.75	103.8	94.2	96.6	94.2	89.4	84.6	79.8	70.3	63.1	65.5	53.6	46.5	39.4	46.5	29.9
33	106.4	94.4	96.8	94.4	89.6	84.8	82.4	72.9	63.3	65.7	53.8	46.7	39.6	46.7	30.1
33.25	104	94.4	96.8	94.4	89.6	84.8	82.4	72.9	63.3	68.1	56.2	46.7	39.6	49.1	30.1
33.5	106.4	94.4	96.8	94.4	89.6	84.8	82.4	72.9	65.7	68.1	56.2	46.7	42	49.1	30.1
33.75	106.2	94.2	96.6	94.2	89.4	84.6	82.2	72.7	65.5	67.9	56	46.5	41.8	48.9	29.9
34	106.2	94.2	96.6	94.2	91.8	87	82.2	75.1	65.5	67.9	56	46.5	41.8	46.5	29.9
34.25	106.2	94.2	96.6	94.2	91.8	87	82.2	75.1	65.5	67.9	56	46.5	41.8	48.9	29.9
34.5	106.2	94.2	96.6	94.2	91.8	87	82.2	72.7	65.5	67.9	56	48.9	41.8	48.9	29.9
34.75	106.2	94.2	96.6	94.2	91.8	87	82.2	72.7	65.5	67.9	56	46.5	41.8	48.9	29.9
35	106.4	94.4	96.8	94.4	92	87.2	82.4	72.9	65.7	68.1	56.2	46.7	42	49.1	32.5
35.25	106.2	94.2	96.6	94.2	91.8	87	84.6	72.7	65.5	67.9	56	48.9	41.8	48.9	29.9
35.5	106.2	96.6	96.6	94.2	91.8	87	84.6	72.7	65.5	70.3	58.4	48.9	41.8	48.9	32.3
35.75	106.4	94.4	96.8	94.4	92	87.2	84.8	75.3	65.7	70.5	58.6	49.1	42	49.1	32.5
36	108.6	96.6	96.6	94.2	91.8	87	84.6	75.1	65.5	70.3	58.4	48.9	41.8	51.2	29.9
36.25	108.8	96.8	96.8	96.8	92	87.2	84.8	75.3	65.7	70.5	58.6	49.1	42	49.1	32.5
36.5	109	97	97	97	92.2	87.4	85	73.1	68.3	70.7	58.8	49.3	44.5	49.3	30.3
36.75	109	97	97	97	92.2	89.8	85	75.5	68.3	70.7	58.8	49.3	42.2	51.7	32.7
37	108.6	96.6	96.6	96.6	91.8	87	84.6	75.1	67.9	70.3	58.4	48.9	44.1	51.2	32.3
37.25	108.8	96.8	96.8	96.8	92	89.6	84.8	75.3	68.1	70.5	58.6	49.1	44.3	51.4	32.5
37.5	108.8	96.8	96.8	96.8	92	89.6	84.8	75.3	68.1	70.5	58.6	51.4	44.3	51.4	32.5
37.75	111	96.6	96.6	96.6	94.2	89.4	84.6	75.1	67.9	72.7	58.4	48.9	44.1	51.2	32.3
38	111.2	96.8	96.8	96.8	92	87.2	87.2	75.3	68.1	72.9	61	49.1	44.3	51.4	32.5
38.25	111	96.6	99	96.6	94.2	89.4	84.6	77.5	67.9	72.7	60.8	51.2	44.1	51.2	32.3
38.5	111.2	96.8	96.8	96.8	92	89.6	87.2	75.3	70.5	72.9	61	51.4	44.3	51.4	32.5
38.75	111.2	96.8	96.8	96.8	94.4	89.6	84.8	77.7	70.5	72.9	61	51.4	44.3	53.8	32.5
39	111.2	96.8	96.8	96.8	94.4	89.6	84.8	77.7	70.5	72.9	61	51.4	44.3	53.8	32.5
39.25	111.4	97	99.4	97	94.6	89.8	87.4	77.9	70.7	73.1	61.2	51.7	44.5	54	32.7
39.5	111.2	99.2	96.8	96.8	94.4	89.6	87.2	75.3	70.5	72.9	61	51.4	46.7	53.8	32.5
39.75	111.2	99.2	99.2	96.8	94.4	89.6	87.2	77.7	70.5	72.9	63.3	51.4	44.3	53.8	32.5
40	113.6	99.2	99.2	99.2	94.4	89.6	87.2	77.7	70.5	72.9	63.3	51.4	46.7	53.8	32.5
40.25	113.8	99.4	99.4	97	94.6	92.2	87.4	77.9	70.7	75.5	63.5	51.7	46.9	54	32.7
40.5	113.6	99.2	99.2	99.2	94.4	92	87.2	77.7	70.5	75.3	63.3	53.8	46.7	53.8	32.5
40.75	113.6	99.2	99.2	99.2	94.4	92	87.2	77.7	70.5	72.9	63.3	53.8	46.7	53.8	32.5
41	113.6	99.2	99.2	99.2	94.4	92	87.2	77.7	70.5	75.3	63.3	53.8	46.7	53.8	32.5
41.25	113.6	99.2	99.2	99.2	94.4	92	87.2	77.7	70.5	75.3	63.3	53.8	46.7	53.8	32.5
41.5	113.8	99.4	99.4	99.4	94.6	92.2	87.4	77.9	70.7	75.5	63.5	54	46.9	54	32.7
41.75	116.2	99.4	99.4	99.4	94.6	92.2	89.8	77.9	73.1	75.5	63.5	54	46.9	54	32.7
42	116.4	99.6	99.6	99.6	97.2	92.4	87.6	78.1	70.9	75.7	66.1	54.2	47.1	56.6	32.9

42.25	116.4	99.6	99.6	99.6	94.8	92.4	90	78.1	73.3	75.7	66.1	54.2	47.1	56.6	32.9
42.5	118.6	101.8	101.8	99.4	94.6	92.2	89.8	80.2	73.1	75.5	65.9	54	46.9	54	35.1
42.75	116.2	101.8	99.4	99.4	97	92.2	89.8	77.9	73.1	75.5	65.9	54	46.9	56.4	35.1
43	118.6	101.8	101.8	99.4	97	92.2	89.8	80.2	73.1	75.5	65.9	54	49.3	56.4	35.1
43.25	118.6	101.8	101.8	99.4	97	94.6	89.8	80.2	73.1	75.5	65.9	56.4	49.3	56.4	35.1
43.5	118.8	102	102	99.6	97.2	94.8	90	80.4	73.3	78.1	66.1	54.2	49.5	56.6	32.9
43.75	118.6	101.8	101.8	99.4	97	94.6	89.8	80.2	75.5	75.5	65.9	56.4	49.3	56.4	35.1
44	121	101.8	101.8	101.8	97	94.6	89.8	80.2	73.1	77.9	65.9	56.4	49.3	56.4	35.1
44.25	121	104.2	101.8	101.8	97	94.6	89.8	80.2	73.1	77.9	65.9	56.4	49.3	56.4	35.1
44.5	121.2	102	102	102	97.2	94.8	90	80.4	75.7	78.1	66.1	56.6	49.5	56.6	35.3
44.75	123.6	104.4	102	102	97.2	94.8	90	80.4	75.7	78.1	66.1	56.6	49.5	56.6	35.3
45	123.6	104.4	104.4	102	97.2	94.8	92.4	80.4	75.7	78.1	68.5	56.6	49.5	56.6	35.3
45.25	123.6	104.4	104.4	102	99.6	94.8	92.4	82.8	75.7	78.1	68.5	56.6	49.5	56.6	35.3
45.5	125.8	104.2	104.2	101.8	99.4	94.6	92.2	80.2	75.5	77.9	68.3	56.4	49.3	58.8	35.1
45.75	125.8	104.2	104.2	101.8	99.4	97	92.2	80.2	75.5	77.9	68.3	56.4	49.3	58.8	35.1
46	126	104.4	104.4	104.4	99.6	97.2	92.4	80.4	75.7	78.1	68.5	56.6	51.9	59	35.3
46.25	125.8	104.2	106.6	104.2	99.4	97	92.2	80.2	75.5	77.9	68.3	56.4	51.7	58.8	35.1
46.5	128.2	104.2	106.6	104.2	99.4	97	92.2	82.6	75.5	80.2	68.3	56.4	51.7	58.8	35.1
46.75	128.2	106.6	106.6	104.2	99.4	97	92.2	82.6	75.5	80.2	68.3	56.4	51.7	58.8	35.1
47	130.6	106.6	106.6	104.2	99.4	97	92.2	82.6	75.5	80.2	68.3	56.4	51.7	58.8	35.1
47.25	130.8	106.8	106.8	104.4	102	97.2	92.4	82.8	75.7	80.4	68.5	59	51.9	59	35.3
47.5	133.1	109	106.6	104.2	101.8	99.4	94.6	82.6	77.9	80.2	70.7	56.4	51.7	58.8	35.1
47.75	135.5	109	109	106.6	101.8	97	94.6	82.6	77.9	80.2	70.7	56.4	51.7	58.8	35.1
48	137.9	109	109	106.6	101.8	97	94.6	82.6	77.9	80.2	70.7	58.8	51.7	58.8	35.1
48.25	140.3	111.4	109	106.6	101.8	99.4	94.6	82.6	77.9	80.2	70.7	58.8	51.7	58.8	35.1
48.5	142.9	111.6	109.2	106.8	102	99.6	94.8	85.2	78.1	80.4	70.9	59	51.9	59	37.6
48.75	145.5	111.8	111.8	107	104.6	99.8	95	85.4	78.3	80.6	71.1	59.2	52.1	59.2	35.5
49	145.3	114	111.6	109.2	104.4	99.6	97.2	85.2	78.1	82.8	70.9	59	51.9	59	35.3
49.25	147.9	114.2	114.2	109.4	104.6	99.8	95	85.4	80.6	80.6	71.1	59.2	52.1	61.6	35.5
49.5	150.3	114.2	114.2	109.4	104.6	102.2	97.4	85.4	80.6	83	71.1	59.2	52.1	61.6	37.8
49.75	152.7	114.2	114.2	109.4	104.6	102.2	97.4	85.4	80.6	83	71.1	59.2	52.1	59.2	37.8
50	155.2	116.6	116.6	111.8	104.6	102.2	97.4	85.4	80.6	83	71.1	59.2	52.1	61.6	37.8
50.25	157.6	119	116.6	111.8	107	102.2	99.8	85.4	80.6	83	73.5	59.2	54.4	61.6	37.8
50.5	157.8	119.2	119.2	112	107.2	104.8	100	88	80.8	83.2	73.7	59.4	54.6	61.8	38
50.75	162.4	119	119	114.2	107	104.6	99.8	87.8	83	83	73.5	59.2	54.4	61.6	37.8
51	164.6	121.2	121.2	114	106.8	104.4	102	87.6	80.4	85.2	73.3	59	54.2	61.4	37.6
51.25	167.2	121.4	121.4	114.2	107	104.6	102.2	87.8	83	85.4	73.5	59.2	54.4	61.6	37.8
51.5	169.4	123.6	123.6	116.4	109.2	104.4	102	87.6	82.8	85.2	73.3	59	54.2	61.4	37.6
51.75	171.9	123.6	123.6	116.4	109.2	104.4	102	90	82.8	85.2	73.3	59	54.2	61.4	37.6
52	174.3	126	126	118.8	109.2	104.4	102	90	82.8	85.2	73.3	61.4	54.2	61.4	37.6
52.25	179.3	128.6	128.6	119	109.4	104.6	102.2	90.2	83	85.4	75.9	61.6	54.4	61.6	37.8
52.5	181.7	128.6	128.6	121.4	109.4	104.6	102.2	90.2	85.4	87.8	75.9	61.6	54.4	61.6	37.8
52.75	181.3	128.2	130.6	121	111.4	106.6	104.2	92.2	85	87.4	75.5	61.2	54	61.2	37.4
53	183.9	130.8	133.3	123.6	111.6	106.8	104.4	92.4	85.2	87.6	75.7	61.4	56.6	63.7	37.6
53.25	186.3	133.3	133.3	123.6	111.6	106.8	104.4	94.8	85.2	87.6	75.7	61.4	56.6	63.7	37.6
53.5	188.6	133.1	135.5	125.8	111.4	106.6	104.2	92.2	85	87.4	75.5	61.2	56.4	63.5	37.4
53.75	190.8	135.3	135.3	128	113.6	106.4	104	94.4	87.2	87.2	77.7	63.3	53.8	63.3	37.2
54	193.4	135.5	137.9	128.2	113.8	106.6	104.2	94.6	87.4	89.8	75.5	61.2	56.4	63.5	37.4
54.25	193.6	138.1	140.5	130.8	114	106.8	104.4	94.8	87.6	90	75.7	63.7	56.6	63.7	37.6
54.5	196.2	138.3	143.1	133.5	116.6	107	104.6	95	87.8	92.6	78.3	63.9	56.8	63.9	37.8
54.75	198.6	140.7	145.5	133.5	116.6	107	104.6	99.8	90.2	92.6	78.3	63.9	56.8	63.9	37.8
55	198.4	142.9	145.3	135.7	118.8	106.8	106.8	99.6	90	92.4	78.1	63.7	56.6	63.7	37.6
55.25	200.8	142.9	147.7	138.1	118.8	106.8	106.8	99.6	90	92.4	78.1	63.7	56.6	63.7	37.6
55.5	203	145.1	149.9	140.3	121	106.6	106.6	99.4	89.8	92.2	77.9	63.5	56.4	63.5	37.4
55.75	205.6	147.7	152.5	140.5	121.2	106.8	106.8	102	90	94.8	80.4	63.7	56.6	63.7	37.6
56	205.6	147.7	152.5	142.9	123.6	109.2	106.8	102	92.4	94.8	80.4	63.7	56.6	63.7	37.6
56.25	208.3	150.3	155.2	145.5	123.8	109.4	107	102.2	92.6	95	80.6	63.9	56.8	63.9	37.8
56.5	208.5	150.5	157.8	145.7	124	109.6	107.2	104.8	95.2	95.2	80.8	64.1	57	64.1	38

56.75	211.1	153.1	158	148.3	126.6	109.8	107.4	102.6	95.4	95.4	81	66.7	57.2	64.3	38.2
57	210.9	152.9	160.2	150.5	126.4	109.6	107.2	104.8	95.2	95.2	83.2	66.5	57	66.5	40.4
57.25	210.7	155.2	160	152.7	128.6	111.8	107	104.6	95	97.4	83	66.3	56.8	66.3	40.2
57.5	212.9	155	162.2	152.5	130.8	111.6	106.8	104.4	94.8	97.2	82.8	66.1	56.6	66.1	40
57.75	213.1	157.6	162.4	155.2	131	111.8	107	104.6	95	97.4	83	66.3	59.2	66.3	40.2
58	215.7	157.8	165	155.4	133.7	114.4	109.6	107.2	97.6	100	83.2	66.5	59.4	66.5	40.4
58.25	217.9	160	167.2	157.6	133.5	114.2	109.4	107	97.4	97.4	83	66.3	56.8	66.3	40.2
58.5	217.7	159.8	167	159.8	133.3	116.4	109.2	104.4	97.2	99.6	82.8	66.1	56.6	66.1	40
58.75	217.5	159.6	169.2	159.6	135.5	116.2	109	106.6	97	99.4	85	65.9	56.4	65.9	39.8
59	220.1	162.2	169.4	162.2	135.7	116.4	109.2	104.4	97.2	99.6	85.2	66.1	59	66.1	40
59.25	220.3	162.4	172.1	162.4	138.3	119	109.4	107	99.8	99.8	85.4	66.3	56.8	66.3	40.2
59.5	220.5	165	172.3	162.6	138.5	119.2	112	107.2	100	100	85.6	66.5	59.4	66.5	40.4
59.75	222.9	165	174.7	165	140.9	121.6	112	104.8	100	100	85.6	68.9	57	66.5	40.4
60	222.7	164.8	176.9	167.2	143.1	121.4	111.8	107	99.8	102.2	87.8	68.7	59.2	66.3	40.2
60.25	225.1	167.2	176.9	169.6	143.1	121.4	114.2	107	99.8	102.2	87.8	68.7	59.2	66.3	40.2
60.5	225.3	167.4	177.1	169.8	143.3	124	114.4	107.2	100	102.4	88	68.9	59.4	66.5	40.4
60.75	225.5	170	179.7	170	145.9	124.2	114.6	105	100.2	102.6	88.2	69.1	59.6	69.1	40.6
61	227.7	169.8	179.5	172.3	148.1	124	114.4	107.2	102.4	102.4	90.4	68.9	59.4	68.9	40.4
61.25	227.9	170	182.1	172.5	148.3	126.6	117	107.4	102.6	102.6	90.6	69.1	59.6	69.1	40.6
61.5	227.9	172.5	182.1	174.9	148.3	126.6	117	105	102.6	102.6	90.6	69.1	59.6	69.1	40.6
61.75	227.7	172.3	184.3	174.7	150.5	126.4	116.8	107.2	102.4	102.4	90.4	68.9	59.4	68.9	40.4
62	230.1	172.3	184.3	177.1	150.5	128.8	116.8	104.8	102.4	102.4	90.4	68.9	59.4	68.9	40.4
62.25	230.1	172.3	184.3	177.1	152.9	128.8	119.2	107.2	102.4	102.4	90.4	71.3	59.4	68.9	42.8
62.5	232.6	174.7	186.7	179.5	152.9	131.2	119.2	107.2	102.4	104.8	90.4	71.3	61.8	68.9	40.4
62.75	232.6	174.7	186.7	179.5	155.4	131.2	119.2	107.2	102.4	104.8	92.8	71.3	61.8	68.9	40.4
63	232.6	174.7	189.2	181.9	155.4	133.7	121.6	107.2	102.4	104.8	92.8	71.3	61.8	68.9	40.4
63.25	232.6	177.1	189.2	181.9	157.8	133.7	121.6	107.2	102.4	104.8	92.8	71.3	61.8	71.3	40.4
63.5	234.6	176.7	191.2	181.5	157.4	133.3	121.2	106.8	104.4	104.4	92.4	70.9	61.4	70.9	42.4
63.75	234.8	176.9	191.4	184.1	160	135.9	123.8	107	104.6	104.6	92.6	73.5	61.6	71.1	40.2
64	234.8	179.3	191.4	184.1	160	135.9	123.8	107	104.6	104.6	92.6	71.1	61.6	71.1	42.6
64.25	234.8	179.3	193.8	184.1	160	138.3	123.8	107	104.6	104.6	92.6	73.5	61.6	71.1	42.6
64.5	237.2	181.7	193.8	186.5	162.4	138.3	126.2	107	104.6	104.6	95	73.5	63.9	71.1	42.6
64.75	237.2	181.7	193.8	186.5	162.4	140.7	126.2	107	104.6	104.6	95	73.5	63.9	71.1	42.6
65	237.2	181.7	196.2	189	164.8	140.7	126.2	107	104.6	104.6	95	73.5	63.9	71.1	42.6
65.25	239.8	181.9	196.4	189.2	165	143.3	128.8	107.2	104.8	104.8	95.2	73.7	64.1	71.3	42.8
65.5	240	184.5	199	191.8	167.6	143.5	129	107.4	105	105	95.4	73.9	64.3	71.5	43
65.75	240	184.5	199	189.4	167.6	143.5	129	107.4	105	105	95.4	76.3	64.3	71.5	43
66	242.4	184.5	199	191.8	170	145.9	131.4	107.4	105	105	95.4	73.9	64.3	73.9	43
66.25	242.4	186.9	199	191.8	170	145.9	131.4	107.4	105	105	97.8	73.9	64.3	73.9	43
66.5	242.4	186.9	201.4	194.2	172.5	148.3	131.4	107.4	105	107.4	97.8	76.3	64.3	73.9	43
66.75	242.4	186.9	201.4	194.2	172.5	148.3	133.9	107.4	105	105	97.8	76.3	64.3	73.9	43
67	242.2	189.2	201.2	196.4	172.3	150.5	133.7	109.6	104.8	104.8	97.6	76.1	64.1	73.7	42.8
67.25	242.2	189.2	203.6	196.4	174.7	150.5	133.7	107.2	104.8	104.8	97.6	76.1	66.5	73.7	42.8
67.5	242.4	189.4	203.8	196.6	174.9	153.1	133.9	109.8	105	105	97.8	76.3	66.7	73.9	43
67.75	244.6	191.6	203.6	198.8	177.1	152.9	136.1	109.6	104.8	104.8	100	76.1	66.5	76.1	42.8
68	244.4	191.4	205.8	198.6	176.9	152.7	135.9	109.4	104.6	107	99.8	78.3	66.3	75.9	42.6
68.25	247	191.6	206	198.8	179.5	155.4	138.5	109.6	104.8	107.2	100	78.5	66.5	76.1	42.8
68.5	246.6	191.2	208.1	200.8	179.1	155	138.1	109.2	104.4	106.8	99.6	78.1	66.1	75.7	42.4
68.75	246.6	193.6	208.1	200.8	181.5	157.4	138.1	109.2	104.4	106.8	99.6	78.1	66.1	75.7	42.4
69	249	193.6	208.1	203.2	181.5	157.4	140.5	109.2	104.4	106.8	99.6	78.1	66.1	75.7	42.4
69.25	249	193.6	210.5	203.2	181.5	159.8	140.5	109.2	104.4	104.4	99.6	80.4	66.1	75.7	42.4
69.5	249.2	193.8	210.7	203.4	184.1	160	140.7	109.4	104.6	107	99.8	78.3	66.3	75.9	42.6
69.75	251.6	196.2	210.7	205.8	184.1	162.4	143.1	109.4	104.6	107	99.8	80.6	68.7	78.3	42.6
70	251.6	196.2	210.7	205.8	186.5	162.4	143.1	109.4	104.6	107	99.8	80.6	66.3	75.9	42.6
70.25	251.6	196.2	213.1	208.3	186.5	162.4	143.1	109.4	104.6	107	102.2	80.6	68.7	78.3	44.9
70.5	254	198.6	213.1	208.3	189	164.8	145.5	109.4	104.6	107	99.8	80.6	68.7	78.3	44.9
70.75	253.8	198.4	215.3	208.1	188.8	164.6	145.3	111.6	104.4	106.8	102	80.4	68.5	78.1	44.7
71	253.8	198.4	215.3	210.5	191.2	167	147.7	111.6	104.4	106.8	102	80.4	68.5	78.1	44.7

71.25	256.4	201	215.5	210.7	191.4	167.2	147.9	111.8	104.6	107	102.2	80.6	68.7	78.3	44.9
71.5	256.8	201.4	218.3	211.1	194.2	170	148.3	109.8	105	107.4	102.6	81	71.5	78.7	45.3
71.75	256.6	201.2	218.1	213.3	194	169.8	150.5	112	104.8	107.2	102.4	83.2	68.9	80.8	45.1
72	259	203.6	220.5	213.3	196.4	172.3	150.5	112	104.8	107.2	102.4	83.2	68.9	80.8	45.1
72.25	259.2	203.8	220.7	213.5	196.6	172.5	150.7	112.2	107.4	107.4	102.6	83.4	71.5	81	45.3
72.5	261.4	203.6	222.9	215.7	198.8	174.7	152.9	112	104.8	107.2	102.4	83.2	71.3	80.8	45.1
72.75	261.4	206	222.9	218.1	198.8	174.7	152.9	114.4	104.8	107.2	102.4	83.2	71.3	80.8	45.1
73	261.4	206	225.3	218.1	198.8	177.1	155.4	114.4	104.8	107.2	102.4	83.2	71.3	80.8	45.1
73.25	264	206.2	225.5	220.7	201.4	177.3	155.6	114.6	107.4	107.4	102.6	83.4	71.5	81	45.3
73.5	264	208.7	225.5	220.7	201.4	177.3	155.6	114.6	107.4	107.4	102.6	85.8	71.5	83.4	45.3
73.75	266.4	208.7	227.9	220.7	203.8	179.7	158	114.6	107.4	107.4	105	85.8	73.9	81	45.3
74	266.6	211.3	228.1	223.3	204	179.9	158.2	114.8	105.2	107.6	105.2	86	71.7	83.6	45.5
74.25	269	211.3	230.5	225.7	206.4	182.3	158.2	117.2	107.6	107.6	102.8	86	74.1	83.6	45.5
74.5	268.8	211.1	230.3	225.5	206.2	182.1	160.4	117	107.4	109.8	105	85.8	73.9	83.4	45.3
74.75	271.2	213.5	232.8	227.9	208.7	184.5	160.4	117	107.4	109.8	105	85.8	73.9	83.4	45.3
75	271.2	213.5	232.8	227.9	208.7	184.5	162.8	117	105	109.8	105	85.8	73.9	83.4	45.3
75.25	273.6	213.5	235.2	227.9	211.1	186.9	162.8	119.4	107.4	109.8	105	85.8	73.9	83.4	45.3
75.5	273.6	213.5	235.2	230.3	211.1	186.9	162.8	119.4	107.4	109.8	105	85.8	73.9	85.8	45.3
75.75	276.2	216.1	237.8	230.5	211.3	189.6	165.4	119.6	107.6	110	105.2	88.4	74.1	86	45.5
76	276.2	216.1	237.8	233	213.7	189.6	165.4	122	107.6	110	105.2	86	76.5	86	45.5
76.25	278.5	216.1	240.2	235.4	213.7	192	167.8	122	107.6	110	105.2	88.4	76.5	86	47.9
76.5	278.7	218.7	240.4	235.6	216.3	192.2	168	122.2	107.8	110.2	105.4	88.6	76.7	86.2	48.1
76.75	280.9	218.5	242.6	237.8	218.5	194.4	167.8	122	107.6	110	105.2	88.4	76.5	86	45.5
77	283.3	220.9	242.6	237.8	218.5	194.4	170.2	124.4	107.6	110	105.2	88.4	76.5	86	47.9
77.25	283.1	220.7	244.8	240	220.7	194.2	170	124.2	107.4	112.2	105	88.2	76.3	88.2	47.7
77.5	285.5	220.7	244.8	240	220.7	196.6	172.5	126.6	107.4	112.2	105	88.2	76.3	88.2	47.7
77.75	285.3	222.9	247	242.2	220.5	198.8	172.3	126.4	107.2	112	104.8	90.4	76.1	88	47.5
78	287.5	222.7	246.8	242	222.7	198.6	174.5	126.2	107	111.8	104.6	90.2	75.9	87.8	47.3
78.25	287.7	222.9	249.4	244.6	222.9	201.2	174.7	126.4	109.6	112	104.8	90.4	78.5	88	47.5
78.5	290.1	225.3	251.8	244.6	225.3	201.2	174.7	126.4	109.6	112	104.8	90.4	78.5	88	47.5
78.75	290.3	225.5	252	247.2	225.5	201.4	177.3	126.6	109.8	114.6	105	90.6	78.7	88.2	47.7
79	292.7	227.9	254.4	247.2	227.9	203.8	177.3	129	109.8	114.6	105	90.6	78.7	88.2	47.7
79.25	292.9	228.1	254.6	249.8	230.5	204	179.9	131.6	110	114.8	105.2	90.8	78.9	88.4	47.9
79.5	295.3	228.1	257	249.8	230.5	206.4	179.9	131.6	110	114.8	105.2	93.2	78.9	90.8	47.9
79.75	297.8	230.7	257.2	252.4	230.7	206.6	182.5	131.8	110.2	115	105.4	93.4	79.1	91	48.1
80	297.8	230.7	259.6	252.4	233.2	209.1	182.5	131.8	110.2	115	105.4	93.4	81.4	91	48.1
80.25	300	233	259.4	254.6	235.4	208.9	182.3	131.6	112.4	117.2	105.2	93.2	81.2	90.8	47.9
80.5	300	233	261.8	254.6	235.4	211.3	184.7	134.1	112.4	117.2	105.2	93.2	81.2	90.8	47.9
80.75	302.4	235.4	261.8	257	235.4	211.3	184.7	134.1	112.4	117.2	105.2	93.2	81.2	93.2	47.9
81	302.2	235.2	264	259.2	237.6	213.5	186.9	133.9	112.2	117	105	93	81	93	50.1
81.25	304.8	235.4	264.2	259.4	237.8	213.7	187.1	134.1	112.4	117.2	105.2	95.6	81.2	93.2	50.3
81.5	304.8	237.8	266.6	259.4	240.2	213.7	187.1	136.5	112.4	117.2	105.2	93.2	81.2	93.2	47.9
81.75	307.4	238	266.8	262	240.4	216.3	189.8	136.7	112.6	119.8	105.4	95.8	81.4	93.4	48.1
82	309.7	238	269.2	262	240.4	216.3	189.8	136.7	115	119.8	105.4	95.8	81.4	93.4	50.5
82.25	309.7	240.4	271.6	264.4	242.8	218.7	189.8	139.1	115	119.8	105.4	95.8	83.8	93.4	50.5
82.5	311.9	240.2	271.4	266.6	242.6	218.5	192	138.9	114.8	119.6	105.2	95.6	83.6	93.2	50.3
82.75	314.5	240.4	274	266.8	245.2	221.1	192.2	141.5	115	122.2	105.4	95.8	83.8	95.8	50.5
83	316.7	242.6	273.8	269	245	220.9	194.4	141.3	114.8	122	105.2	95.6	83.6	95.6	50.3
83.25	319.2	242.8	274	269.2	247.6	223.5	194.6	143.9	115	122.2	105.4	95.8	83.8	95.8	50.5
83.5	319	245	276.2	269	247.4	223.3	196.8	143.7	117.2	122	105.2	98	83.6	95.6	50.3
83.75	321.6	245.2	278.7	271.6	250	225.9	197	143.9	117.4	124.6	105.4	98.2	83.8	95.8	50.5
84	324	245.2	278.7	274	250	225.9	199.4	143.9	117.4	124.6	105.4	98.2	86.2	95.8	50.5
84.25	324	247.6	281.1	274	252.4	228.3	199.4	146.3	117.4	124.6	105.4	98.2	86.2	95.8	50.5
84.5	326.4	247.6	281.1	274	252.4	228.3	201.8	146.3	119.8	124.6	105.4	98.2	86.2	95.8	50.5
84.75	328.7	247.6	283.5	276.4	254.8	230.7	201.8	146.3	119.8	124.6	105.4	98.2	86.2	95.8	50.5
85	328.9	250.2	283.7	276.6	255	230.9	202	148.9	120	124.8	105.6	98.4	86.4	98.4	50.7
85.25	331.3	250.2	286.1	278.9	257.4	230.9	204.4	148.9	120	127.2	105.6	98.4	86.4	98.4	50.7
85.5	331.1	250	285.9	278.7	257.2	233.2	204.2	148.7	122.2	127	105.4	98.2	86.2	98.2	50.5

85.75	333.7	252.6	288.5	281.3	257.4	235.8	206.8	151.3	122.4	127.2	105.6	100.8	86.4	98.4	50.7
86	336	252.6	288.5	281.3	259.8	235.8	206.8	153.7	122.4	127.2	105.6	100.8	86.4	98.4	50.7
86.25	335.8	254.8	290.7	283.5	259.6	235.6	206.6	151.1	122.2	129.4	105.4	100.6	88.6	98.2	50.5
86.5	338.4	255	290.9	283.7	259.8	238.2	209.3	153.7	122.4	129.6	105.6	100.8	86.4	98.4	50.7
86.75	340.5	254.8	293.1	285.9	262	238	209.1	153.5	124.6	129.4	105.4	100.6	88.6	100.6	52.9
87	340.5	257.2	293.1	285.9	264.4	240.4	211.5	153.5	124.6	129.4	105.4	100.6	88.6	98.2	52.9
87.25	343.1	257.4	295.7	288.5	264.6	240.6	211.7	156.2	124.8	132	105.6	100.8	88.8	98.4	53.1
87.5	345.5	259.8	295.7	288.5	264.6	243	211.7	156.2	124.8	132	105.6	100.8	88.8	100.8	53.1
87.75	345.5	259.8	298	290.9	267	243	214.1	158.6	127.2	132	105.6	100.8	88.8	100.8	53.1
88	347.8	262.2	298	290.9	267	243	214.1	158.6	127.2	132	105.6	100.8	88.8	100.8	53.1
88.25	347.8	264.6	300.4	293.3	269.4	245.4	216.5	158.6	127.2	134.5	105.6	100.8	91.2	100.8	53.1
88.5	347.8	267	300.4	293.3	269.4	245.4	216.5	161	129.6	134.5	105.6	100.8	91.2	100.8	53.1
88.75	347.8	269.4	302.8	295.7	271.8	247.8	218.9	158.6	129.6	134.5	105.6	103.2	91.2	100.8	53.1
89	350	269.2	305	295.5		247.6	218.7	160.8	129.4	134.3	105.4	103	91	100.6	52.9
89.25	352.5	271.8	305.2	298	271.8	250.2	218.9	163.4	129.6	136.9	105.6	103.2	91.2	100.8	53.1
89.5	352.1	273.8	304.8	297.6	273.8	249.8	220.9	163	131.6	136.5	105.2	102.8	90.8	102.8	52.7
89.75	354.5	273.8	307.2	297.6	276.2	252.2	220.9	163	131.6	136.5	105.2	102.8	90.8	102.8	52.7
90	357	276.4	307.4	300.2	276.4	252.4	223.5	165.6	131.8	136.7	105.4	103	91	103	52.9
90.25	359.4	278.7	309.7	300.2	276.4	254.8	223.5	165.6	134.3	139.1	105.4	103	91	103	52.9
90.5	359.2	278.5	309.5	302.4	278.5	254.6	223.3	165.4	134.1	138.9	105.2	102.8	93.2	102.8	52.7
90.75	361.5	280.9	311.9	302.4	278.5	257	225.7	165.4	134.1	141.3	105.2	102.8	93.2	102.8	55
91	364.1	281.1	312.1	305	281.1	257.2	225.9	168	134.3	141.5	105.4	105.4	93.4	103	55.2
91.25	364.1	281.1	314.5	305	281.1	259.6	225.9	168	136.7	141.5	105.4	103	93.4	103	55.2
91.5	364.1	283.5	316.9	307.4	281.1	259.6	228.3	170.4	136.7	141.5	105.4	103	93.4	103	55.2
91.75	366.2	283.3	316.7	307.2	283.3	261.8	228.1	170.2	136.5	143.7	105.2	102.8	93.2	102.8	55
92	366.4	283.5	316.9	309.7	283.5	262	230.7	170.4	136.7	143.9	105.4	105.4	93.4	103	55.2
92.25	368.8	288.3	319.2	309.7	285.9	262	230.7	172.9	139.1	143.9	105.4	105.4	93.4	103	55.2
92.5	368.8	288.3	321.6	312.1	285.9	264.4	233.2	172.9	139.1	146.3	105.4	105.4	93.4	105.4	55.2
92.75	371.1	288.3	321.6	312.1	288.3	264.4	233.2	172.9	141.5	146.3	107.8	105.4	95.8	105.4	55.2
93	373.5	290.7	324	314.5	288.3	266.8	233.2	172.9	141.5	146.3	107.8	105.4	95.8	105.4	55.2
93.25	373.3	292.9	323.8	314.3	288.1	269	235.4	175.1	141.3	148.5	107.6	105.2	95.6	105.2	55
93.5	375.8	293.1	326.4	316.9	290.7	269.2	235.6	175.3	143.9	148.7	107.8	105.4	95.8	105.4	55.2
93.75	376	293.3	326.6	317.1	290.9	269.4	238.2	175.5	144.1	148.9	108	105.6	96	105.6	55.4
94	378.4	295.7	328.9	317.1	293.3	271.8	238.2	177.9	144.1	148.9	108	105.6	96	105.6	55.4
94.25	378.4	298	328.9	319.4	293.3	271.8	240.6	177.9	144.1	151.3	108	105.6	96	105.6	55.4
94.5	380.9	298.2	331.5	319.6	295.9	274.4	240.8	180.5	146.7	151.5	108.2	105.8	96.2	105.8	55.6
94.75	382.8	302.6	331.1	321.6	295.5	274	240.4	180.1	146.3	153.5	107.8	105.4	95.8	105.4	55.2
95	382.6	304.8	333.2	323.8	297.6	276.2	242.6	179.9	148.5	153.3	107.6	105.2	95.6	105.2	55
95.25	385	307.2	335.6	323.8	297.6	276.2	242.6	179.9	148.5	153.3	110	105.2	98	105.2	57.4
95.5	385.4	305.2	336	326.6	298	278.9	245.4	182.7	148.9	156.2	110.4	105.6	98.4	105.6	57.8
95.75	387.5	307.4	338.2	326.4	300.2	278.7	245.2	182.5	151.1	156	110.2	105.4	98.2	105.4	57.6
96	387.7	307.6	338.4	328.9	300.4	281.3	247.8	185.1	151.3	156.2	110.4	105.6	98.4	105.6	57.8
96.25	387.5	307.4	340.5	328.7	302.6	281.1	247.6	184.9	151.1	156	110.2	105.4	98.2	107.8	57.6
96.5	387.3	307.2	340.3	330.9	302.4	280.9	247.4	184.7	153.3	158.2	110	107.6	98	105.2	57.4
96.75	389.8	309.7	342.9	331.1	305	283.5	250	184.9	153.5	158.4	110.2	107.8	98.2	105.4	57.6
97	389.8	309.7	342.9	333.4	305	283.5	250	187.3	153.5	158.4	110.2	105.4	98.2	105.4	57.6
97.25	392.4	314.7	345.5	333.7	307.6	286.1	252.6	190	153.7	161	110.4	108	98.4	108	57.8
97.5	392.4	324.2	345.5	336	307.6	286.1	252.6	190	156.2	163.4	112.8	108	100.8	105.6	57.8
97.75	392.4	328.9	347.8	336	307.6	288.5	252.6	190	156.2	163.4	112.8	108	100.8	105.6	57.8
98	394.7	331.3	347.8	336	309.9	288.5	255	190	158.6	163.4	112.8	105.6	98.4	105.6	57.8
98.25	394.7	333.7	350.2	338.4	309.9	288.5	255	190	158.6	163.4	112.8	108	100.8	105.6	57.8
98.5	397	333.7	350.2	338.4	312.3	290.9	257.4	192.4	158.6	165.8	112.8	108	100.8	105.6	57.8
98.75	396.8	335.8	352.3	340.5	312.1	290.7	257.2	192.2	160.8	165.6	112.6	107.8	100.6	107.8	57.6

Test 11

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	15.7	22.8	22.8	22.8	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
0.5	39.4	22.8	22.8	22.8	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
0.75	60.9	25.4	25.4	25.4	23	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
1	75	25.2	27.5	25.2	22.8	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
1.25	82.2	29.9	34.6	32.3	22.8	25.2	22.8	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
1.5	84.8	37.2	39.6	37.2	25.4	25.4	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
1.75	87.2	41.9	46.7	41.9	27.7	30.1	25.4	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
2	87.2	46.7	53.8	49	30.1	32.5	25.4	23	20.6	20.6	20.6	20.6	20.6	20.6	20.6
2.25	87.2	51.4	56.2	53.8	30.1	34.8	27.7	20.6	20.6	23	20.6	20.6	20.6	20.6	20.6
2.5	87	56	60.7	56	34.6	39.4	29.9	20.4	22.8	22.8	20.4	20.4	20.4	20.4	20.4
2.75	87	58.4	63.1	60.7	37	41.7	32.3	22.8	22.8	25.2	20.4	20.4	20.4	20.4	20.4
3	87	63.1	65.5	63.1	39.4	44.1	34.6	22.8	22.8	25.2	20.4	20.4	20.4	20.4	20.4
3.25	89.4	63.1	65.5	65.5	44.1	46.5	37	25.2	25.2	27.5	20.4	20.4	20.4	20.4	20.4
3.5	92	65.7	68.1	65.7	44.3	49	39.6	25.4	25.4	27.7	20.6	20.6	20.6	20.6	20.6
3.75	94.2	67.9	70.3	67.9	46.5	48.8	41.7	25.2	25.2	29.9	20.4	20.4	20.4	20.4	20.4
4	96.8	68.1	70.5	68.1	49	51.4	44.3	27.7	25.4	30.1	20.6	20.6	20.6	20.6	20.6
4.25	99.2	70.5	70.5	70.5	51.4	53.8	46.7	30.1	25.4	32.5	20.6	20.6	20.6	20.6	20.6
4.5	101.6	72.9	72.9	70.5	53.8	53.8	46.7	30.1	27.7	32.5	20.6	20.6	20.6	20.6	20.6
4.75	101.6	72.9	72.9	72.9	53.8	56.2	49	30.1	27.7	34.8	20.6	20.6	20.6	20.6	20.6
5	104	72.9	72.9	72.9	56.2	56.2	51.4	32.5	30.1	34.8	20.6	23	20.6	23	20.6
5.25	104.2	75.4	75.4	75.4	56.4	58.8	51.6	32.7	30.3	37.4	20.8	23.2	20.8	23.2	20.8
5.5	106.6	75.4	75.4	75.4	58.8	58.8	54	35	32.7	37.4	20.8	23.2	20.8	23.2	20.8
5.75	106.6	77.8	77.8	75.4	61.1	61.1	54	35	32.7	39.8	20.8	23.2	20.8	23.2	20.8
6	109	77.8	77.8	77.8	61.1	63.5	56.4	37.4	35	39.8	23.2	23.2	20.8	23.2	20.8
6.25	111.2	77.6	77.6	77.6	63.3	63.3	56.2	37.2	34.8	39.6	23	23	20.6	23	20.6
6.5	113.6	77.6	77.6	77.6	63.3	63.3	56.2	39.6	34.8	41.9	23	25.4	20.6	23	20.6
6.75	113.6	80	80	77.6	63.3	65.7	58.6	39.6	37.2	44.3	23	25.4	20.6	25.4	20.6
7	116	80	80	80	65.7	65.7	58.6	41.9	37.2	44.3	25.4	25.4	20.6	25.4	20.6
7.25	118.6	80.2	80.2	80.2	65.9	65.9	61.1	42.1	39.8	44.5	25.6	25.6	20.8	25.6	20.8
7.5	121.2	82.8	80.4	80.4	68.5	68.5	61.3	44.7	40	44.7	25.8	25.8	21	25.8	21
7.75	123.6	82.8	82.8	82.8	68.5	68.5	63.7	44.7	42.3	47.1	25.8	28.1	21	25.8	21
8	128.2	82.6	82.6	82.6	68.3	68.3	63.5	44.5	42.1	46.9	25.6	27.9	23.2	27.9	20.8
8.25	133.3	82.8	82.8	82.8	70.9	70.9	63.7	47.1	44.7	47.1	25.8	28.1	23.4	28.1	21
8.5	142.9	82.8	82.8	82.8	70.9	70.9	66.1	47.1	44.7	49.4	28.1	28.1	23.4	28.1	21
8.75	154.8	85	85	85	70.7	73.1	65.9	49.2	44.5	49.2	27.9	27.9	23.2	27.9	20.8
9	164.4	85	85	85	73.1	73.1	68.3	49.2	44.5	49.2	27.9	30.3	23.2	30.3	20.8
9.25	174.3	87.6	85.2	87.6	73.3	75.6	68.5	49.4	47.1	51.8	30.5	30.5	23.4	30.5	21
9.5	181.5	87.6	87.6	87.6	73.3	75.6	70.9	51.8	49.4	51.8	30.5	30.5	23.4	30.5	21
9.75	189	90.2	90.2	90.2	75.9	78.2	71.1	52	49.6	52	30.7	30.7	23.6	30.7	21.2
10	196	92.4	92.4	92.4	75.6	78	73.3	51.8	49.4	54.2	30.5	30.5	25.8	32.9	21
10.25	203.4	95	95	95	78.2	80.6	73.5	54.4	52	54.4	33.1	33.1	26	33.1	21.2
10.5	210.7	97.4	95	97.4	78.2	83	75.9	54.4	52	54.4	33.1	33.1	26	33.1	21.2
10.75	215.1	97	97	97	80.2	85	77.8	56.4	51.6	54	32.7	32.7	25.6	32.7	20.8
11	222.7	99.8	99.8	99.8	83	87.8	78.2	56.8	54.4	56.8	35.4	33.1	26	33.1	21.2
11.25	227.5	102.2	99.8	102.2	83	90.2	80.6	56.8	54.4	56.8	35.4	35.4	26	35.4	23.6
11.5	232.6	102.4	102.4	102.4	85.6	92.8	83.2	57	54.6	57	35.6	35.6	26.2	35.6	23.8
11.75	239.6	104.6	104.6	102.2	87.8	95	85.4	59.2	56.8	59.2	35.4	35.4	28.3	35.4	23.6
12	244.6	104.8	107.2	104.8	90.4	97.6	88	59.4	59.4	59.4	38	35.6	28.5	35.6	23.8
12.25	251.8	107.2	107.2	107.2	92.8	97.6	90.4	61.7	59.4	61.7	38	35.6	28.5	38	23.8
12.5	259	107.2	109.6	107.2	95.2	100	92.8	61.7	61.7	61.7	38	38	28.5	38	23.8
12.75	266	109.4	111.8	109.4	97.4	99.8	95	63.9	61.5	63.9	37.8	37.8	28.3	37.8	23.6
13	273.4	112	114.4	112	100	102.4	97.6	64.1	64.1	64.1	40.4	38	30.9	38	23.8

13.25	280.7	114.6	117	114.6	100.2	102.6	97.8	66.7	66.7	66.7	40.6	40.6	31.1	40.6	24
13.5	290.1	116.8	119.2	116.8	102.4	102.4	100	66.5	66.5	66.5	40.4	40.4	30.9	40.4	26.2
13.75	299.8	119.4	121.8	119.4	102.6	102.6	100.2	69.1	69.1	69.1	42.9	40.6	31.1	40.6	26.4
14	311.7	124.2	126.6	121.8	102.6	105	102.6	69.1	71.5	71.5	42.9	40.6	33.5	40.6	26.4
14.25	325.7	126.4	128.8	126.4	102.4	104.8	102.4	71.3	73.7	73.7	42.7	42.7	33.3	42.7	26.2
14.5	337.5	131.3	131.3	128.8	102.4	104.8	102.4	71.3	73.7	73.7	45.1	42.7	33.3	42.7	26.2
14.75	349.5	133.9	136.3	131.5	102.6	107.4	102.6	73.9	76.3	78.6	45.3	42.9	33.5	42.9	26.4
15	358.7	140.9	138.5	136.1	102.4	107.2	102.4	76.1	78.4	80.8	45.1	42.7	33.3	42.7	28.5
15.25	366	145.9	143.5	141.1	102.6	109.8	102.6	76.3	81	81	45.3	45.3	35.8	42.9	28.7
15.5	375.4	150.7	148.3	143.5	105	112.2	105	78.6	83.4	83.4	47.7	45.3	35.8	45.3	28.7
15.75	382.2	155.4	150.5	150.5	104.8	112	104.8	83.2	83.2	85.6	47.5	45.1	35.6	45.1	28.5
16	396.2	162.6	155.4	153	104.8	114.4	104.8	83.2	85.6	85.6	49.8	45.1	35.6	47.5	28.5
16.25	405.5	167.4	160.2	160.2	107.2	116.8	104.8	85.6	88	88	49.8	47.5	38	47.5	30.9
16.5	412.5	174.7	167.4	165	109.6	121.6	107.2	88	90.4	90.4	49.8	47.5	38	47.5	30.9
16.75	419.4	179.5	172.3	169.9	112	121.6	107.2	88	92.8	92.8	52.2	47.5	38	47.5	30.9
17	423.9	186.6	176.9	176.9	111.8	126.2	109.4	90.2	97.4	95	52	49.6	37.8	47.3	33.1
17.25	428.7	194	184.3	184.3	116.8	128.8	109.6	92.8	97.6	95.2	54.6	49.8	40.4	49.8	33.3
17.5	433.3	198.8	189.2	191.6	119.2	133.7	112	97.6	100	97.6	54.6	49.8	40.4	49.8	33.3
17.75	437.7	205.9	196.2	198.6	121.4	138.3	114.2	97.4	102.2	97.4	54.4	49.6	40.2	49.6	33.1
18	442.6	210.9	201.2	203.6	124	140.9	116.8	100	102.4	100	57	49.8	42.7	52.2	35.6
18.25	444.9	218.1	208.5	210.9	126.4	145.7	121.6	100	102.4	100	57	52.2	42.7	52.2	35.6
18.5	447.2	222.9	213.3	218.1	131.3	150.5	124	102.4	102.4	102.4	59.4	52.2	42.7	52.2	35.6
18.75	449.5	227.7	218.1	222.9	133.7	153	126.4	102.4	104.8	102.4	61.7	52.2	42.7	52.2	35.6
19	451.8	232.6	225.3	230.2	138.5	157.8	131.3	102.4	104.8	102.4	61.7	54.6	45.1	54.6	38
19.25	452	237.6	230.4	235.2	143.5	162.8	133.9	102.6	105	102.6	64.3	54.8	45.3	54.8	38.2
19.5	454.3	242.4	237.6	240	145.9	167.6	138.7	105	105	102.6	64.3	54.8	45.3	54.8	38.2
19.75	456.6	247.2	242.4	244.8	150.7	172.5	143.5	102.6	105	102.6	66.7	54.8	45.3	57.2	40.6
20	456.8	252.2	247.4	249.8	155.8	177.5	146.1	102.8	105.2	102.8	66.9	55	45.5	57.4	40.8
20.25	459.1	257	252.2	254.6	160.6	182.3	150.9	102.8	105.2	102.8	69.3	57.4	47.9	57.4	40.8
20.5	459.3	259.6	257.2	259.6	163.2	187.4	153.6	103	105.4	105.4	69.5	57.6	48.1	57.6	41
20.75	461.4	264.2	261.8	264.2	167.8	192	158.2	102.8	105.2	105.2	71.7	57.4	47.9	59.8	43.1
21	463.9	269.2	266.8	269.2	172.9	194.6	160.8	103	105.4	105.4	74.3	57.6	48.1	60	43.3
21.25	463.9	271.6	271.6	274	175.3	199.4	165.6	103	107.8	105.4	76.7	60	50.4	62.3	43.3
21.5	466	276.1	276.1	276.1	179.9	204	167.8	105.2	107.6	102.8	78.8	62.1	50.2	62.1	45.5
21.75	465.8	278.3	280.7	280.7	184.5	208.7	172.5	105	105	105	78.6	61.9	50	64.3	45.3
22	468.3	283.3	285.7	285.7	189.6	211.3	175.1	105.2	107.6	102.8	81.2	62.1	52.6	64.5	45.5
22.25	470.6	288.1	290.5	290.5	192	216.1	179.9	105.2	107.6	105.2	83.6	62.1	52.6	64.5	45.5
22.5	472.9	290.5	295.2	295.2	196.8	220.9	184.7	105.2	107.6	105.2	83.6	64.5	52.6	66.9	45.5
22.75	475.2	295.2	300	300	201.6	225.7	189.6	105.2	107.6	105.2	86	64.5	55	66.9	45.5
23	475.4	297.8	305	305	204.2	230.8	192.2	105.4	107.8	105.4	88.6	64.7	55.2	67.1	48.1
23.25	477.5	302.4	309.5	309.5	208.9	235.4	196.8	105.2	107.6	105.2	88.4	64.5	57.4	69.3	47.9
23.5	480	307.3	314.5	314.5	211.5	240.4	199.4	105.4	107.8	105.4	91	67.1	57.6	69.5	48.1
23.75	482.1	309.5	321.4	319	216.1	245	204	105.2	110	105.2	93.2	66.9	57.4	71.7	47.9
24	482.1	314.3	326.1	323.7	218.5	249.8	208.9	107.6	110	107.6	93.2	66.9	57.4	71.7	47.9
24.25	484.4	316.6	333.2	330.8	223.3	254.6	211.3	107.6	110	107.6	95.6	69.3	57.4	74.1	50.2
24.5	486.7	319	337.9	335.6	225.7	259.4	216.1	107.6	110	107.6	95.6	69.3	59.8	74.1	50.2
24.75	489.2	323.9	345.2	340.5	230.8	264.4	218.7	110.2	112.6	110.2	98.2	71.9	62.3	74.3	50.4
25	491.3	326.1	349.7	347.4	233	269	223.3	110	112.4	110	98	71.7	62.1	76.5	50.2
25.25	491.5	328.7	357	352.3	238	271.6	228.3	110.2	115	112.6	98.2	71.9	62.3	76.7	50.4
25.5	493.6	333.2	361.5	359.1	240.2	276.1	233	112.4	117.2	112.4	100.4	74.1	64.5	78.8	52.6
25.75	496.1	335.8	368.7	364	245.2	281.1	235.6	112.6	117.4	112.6	100.6	74.3	64.7	79	52.8
26	498.4	340.5	373.4	371.1	247.6	285.9	240.4	117.4	119.8	115	100.6	74.3	67.1	81.4	52.8
26.25	498.4	342.9	378.1	378.1	250	290.7	245.2	117.4	122.2	117.4	100.6	76.7	67.1	81.4	52.8
26.5	498.4	347.6	382.8	382.8	254.8	295.4	247.6	119.8	122.2	117.4	100.6	76.7	67.1	81.4	52.8
26.75	500.9	352.5	387.6	387.6	257.4	300.4	252.6	122.4	124.8	120	100.8	79.2	69.7	84	53
27	500.7	354.6	392.1	392.1	262	305	257.2	124.6	127	119.8	103	79	69.5	83.8	55.2
27.25	502.7	359.1	396.6	396.6	266.6	309.5	259.4	124.4	129.2	122	100.4	78.8	71.7	83.6	55
27.5	502.9	364	401.4	401.4	269.2	312.1	264.4	129.4	131.9	122.2	100.6	81.4	71.9	86.2	55.2

27.75	502.9	368.7	403.8	406.1	271.6	314.5	266.8	131.9	134.3	124.6	103	81.4	71.9	86.2	55.2
28	505.4	371.3	408.6	410.9	276.5	319.4	269.4	132.1	136.9	124.8	103.2	84	74.5	88.8	55.4
28.25	505.4	376	413.3	415.6	278.9	321.8	274.2	134.5	139.3	127.2	103.2	84	74.5	88.8	55.4
28.5	505.4	378.3	417.9	420.2	281.3	326.5	276.5	139.3	141.7	127.2	103.2	86.4	76.9	88.8	55.4
28.75	507.7	383	420.2	427.2	286.1	331.2	281.3	139.3	144.1	129.6	103.2	86.4	79.2	88.8	55.4
29	507.9	385.5	425.1	432	288.7	333.8	286.3	144.3	146.7	129.8	103.4	86.6	79.4	91.4	58
29.25	507.9	390.2	429.7	436.6	291.1	338.5	288.7	146.7	149.1	129.8	103.4	89	79.4	91.4	58
29.5	510	392.3	431.8	441.1	295.6	340.7	293.3	148.9	151.3	132.1	103.2	88.8	81.6	91.2	57.8
29.75	510	397	436.4	445.7	298	345.4	295.6	151.3	153.8	134.5	103.2	91.2	81.6	93.6	57.8
30	510	399.3	438.7	450.3	300.4	350.1	298	153.8	158.6	134.5	103.2	91.2	84	93.6	57.8
30.25	509.8	403.8	440.9	452.4	302.6	354.6	302.6	156	160.8	136.7	103	91	83.8	93.4	57.6
30.5	510.2	406.5	445.9	457.4	305.4	359.7	305.4	158.8	163.6	137.1	103.4	93.8	84.2	93.8	58
30.75	510.2	408.8	448.2	459.7	310.1	362.1	310.1	163.6	166	139.5	103.4	93.8	86.6	93.8	58
31	512.5	411.1	450.5	464.3	312.5	366.8	312.5	166	168.4	141.9	103.4	96.2	86.6	96.2	58
31.25	512.5	415.8	455.1	466.6	314.9	369.1	317.2	168.4	170.9	141.9	103.4	96.2	86.6	96.2	60.4
31.5	512.5	418.1	455.1	468.9	317.2	373.8	319.6	170.9	173.3	144.3	103.4	96.2	89	96.2	60.4
31.75	512.3	420.2	459.5	471	319.4	378.3	321.8	173.1	175.5	144.1	103.2	96	88.8	96	60.2
32	512.3	422.5	461.8	473.3	321.8	380.6	324.1	175.5	180.3	146.5	103.2	98.4	88.8	96	60.2
32.25	512.3	424.9	464.1	475.6	324.1	385.3	328.9	177.9	182.7	148.9	103.2	98.4	91.2	98.4	60.2
32.5	512.3	427.2	466.4	475.6	326.5	387.6	328.9	180.3	185.1	151.3	103.2	98.4	91.2	98.4	60.2
32.75	512.5	427.4	468.9	478.1	329.1	390.2	333.8	185.3	187.8	151.5	103.4	101	91.4	98.6	62.7
33	512.3	429.5	468.7	480.2	331.2	394.6	336	187.6	190	153.8	103.2	100.8	93.6	98.4	62.5
33.25	512.3	429.5	471	482.5	331.2	397	338.3	190	194.8	153.8	103.2	100.8	93.6	98.4	62.5
33.5	510	431.8	473.3	482.5	333.6	399.3	343.1	194.8	197.2	156.2	103.2	100.8	93.6	98.4	62.5
33.75	510	434.1	473.3	484.8	336	401.6	345.4	194.8	199.6	158.6	103.2	103.2	96	98.4	62.5
34	509.8	436.2	473.1	484.6	338.1	403.8	347.6	199.4	201.8	160.8	103	103	95.8	98.2	62.3
34.25	509.8	436.2	475.4	486.9	340.5	406.1	352.3	201.8	204.2	163.2	103	103	95.8	98.2	62.3
34.5	507.7	438.7	477.9	487.1	343.1	408.6	354.8	204.4	209.3	163.4	103.2	103.2	96	100.8	64.9
34.75	505.2	438.5	477.7	489.2	345.2	410.7	357	206.7	211.5	165.6	103	103	98.2	100.6	64.7
35	505.2	438.5	477.7	489.2	347.6	413.1	359.3	209.1	211.5	165.6	103	103	98.2	100.6	64.7
35.25	502.9	440.9	477.7	489.2	349.9	415.4	361.7	211.5	216.3	170.5	103	103	98.2	100.6	64.7
35.5	502.9	443.2	480	489.2	352.3	417.7	364	213.9	218.7	170.5	103	103	98.2	100.6	64.7
35.75	500.7	443.2	480	491.5	354.6	420	368.7	216.3	221.1	172.9	103	103	100.6	100.6	64.7
36	500.7	443.2	480	491.5	357	422.3	371.1	218.7	223.5	172.9	103	103	100.6	100.6	64.7
36.25	500.7	443.2	482.3	491.5	359.3	422.3	373.4	221.1	228.3	175.3	103	103	100.6	100.6	64.7
36.5	500.9	445.7	482.5	491.7	361.9	424.9	376	223.7	231	177.9	103.2	103.2	100.8	100.8	64.9
36.75	498.6	445.7	482.5	491.7	361.9	427.2	378.3	226.1	233.4	180.3	103.2	103.2	103.2	103.2	67.3
37	500.9	445.7	482.5	491.7	364.2	429.5	380.6	228.5	235.8	182.7	103.2	105.6	100.8	103.2	64.9
37.25	498.8	448.2	482.7	491.9	366.8	429.7	383.2	231.2	238.4	182.9	103.4	103.4	103.4	103.4	67.5
37.5	498.4	447.8	482.3	493.8	368.7	431.6	385.1	233.2	240.4	184.9	105.4	105.4	103	103	67.1
37.75	498.6	448	482.5	494	371.3	434.1	387.6	235.8	240.6	187.6	103.2	105.6	103.2	103.2	67.3
38	498.6	450.3	484.8	494	371.3	434.1	390	238.2	245.4	190	103.2	105.6	103.2	103.2	67.3
38.25	498.6	450.3	484.8	496.3	373.6	436.4	392.3	238.2	247.8	190	103.2	103.2	103.2	103.2	67.3
38.5	498.6	450.3	484.8	496.3	376	436.4	392.3	240.6	250.2	192.4	103.2	105.6	103.2	103.2	69.7
38.75	498.6	452.6	487.1	498.6	378.3	438.7	394.6	243	252.6	194.8	105.6	105.6	103.2	103.2	67.3
39	498.8	452.8	487.3	501.1	380.8	441.3	397.2	245.6	252.8	195	105.8	105.8	103.4	103.4	67.5
39.25	500.9	452.6	487.1	500.9	383	443.4	399.3	247.8	255	197.2	105.6	105.6	103.2	103.2	67.3
39.5	500.9	452.6	487.1	503.1	383	443.4	401.6	250.2	257.4	199.6	105.6	105.6	103.2	103.2	69.7
39.75	501.1	455.1	489.6	503.3	385.5	445.9	404.2	250.4	260	202.2	105.8	105.8	103.4	103.4	69.9
40	500.9	454.9	489.4	505.4	387.6	445.7	406.3	252.6	262.2	202	105.6	105.6	105.6	103.2	69.7
40.25	501.1	455.1	489.6	507.9	387.8	448.2	406.5	255.2	264.8	204.6	105.8	105.8	103.4	103.4	69.9
40.5	500.7	457	491.5	507.5	389.8	450.1	408.4	257.2	266.8	206.7	105.4	105.4	103	103	69.5
40.75	500.9	457.2	491.7	510	392.3	450.3	410.9	257.4	267	209.3	105.6	105.6	103.2	103.2	69.7
41	500.7	457	491.5	512.1	392.1	452.4	413.1	259.6	269.2	209.1	105.4	107.8	103	103	69.5
41.25	500.7	457	493.8	514.4	394.4	452.4	415.4	262	271.6	211.5	107.8	107.8	103	103	69.5
41.5	501.1	457.4	494.2	514.8	394.8	455.1	418.1	264.8	274.4	211.9	108.2	108.2	105.8	103.4	69.9
41.75	501.1	459.7	494.2	517.1	397.2	457.4	420.4	264.8	276.7	214.3	108.2	108.2	105.8	103.4	72.3
42	498.6	459.5	494	516.9	399.3	457.2	422.5	267	276.5	216.5	108	108	103.2	105.6	72.1

42.25	496.5	459.7	496.5	519.4	399.5	457.4	422.7	269.6	279.1	216.7	110.6	108.2	103.4	103.4	72.3
42.5	496.3	459.5	496.3	519.2	399.3	457.2	427.2	271.8	281.3	221.3	110.4	108	103.2	105.6	72.1
42.75	496.3	459.5	496.3	521.5	401.6	459.5	427.2	271.8	283.7	221.3	112.8	108	103.2	105.6	72.1
43	494.2	459.7	496.5	521.7	401.8	459.7	429.7	274.4	286.3	223.9	113	108.2	103.4	105.8	72.3
43.25	491.9	459.7	498.8	523.9	401.8	462	429.7	276.7	286.3	223.9	113	108.2	103.4	105.8	72.3
43.5	491.9	459.7	498.8	523.9	404.2	462	432	276.7	288.7	226.3	115.4	108.2	103.4	105.8	72.3
43.75	489.6	462	501.1	526.2	406.5	464.3	434.3	279.1	291.1	228.7	115.4	108.2	103.4	105.8	74.7
44	489.6	462	501.1	526.2	406.5	464.3	436.6	279.1	293.5	231.2	117.8	110.6	103.4	105.8	74.7
44.25	487.3	462	501.1	528.5	406.5	466.6	436.6	281.5	293.5	231.2	117.8	110.6	105.8	105.8	74.7
44.5	487.3	462	503.3	528.5	408.8	466.6	438.9	283.9	295.8	233.6	120.2	110.6	105.8	105.8	74.7
44.75	485	462	503.3	528.5	408.8	466.6	438.9	283.9	298.2	236	122.6	110.6	103.4	105.8	74.7
45	482.7	462	503.3	528.5	408.8	468.9	441.3	286.3	298.2	236	122.6	110.6	103.4	105.8	74.7
45.25	482.7	462	505.6	528.5	411.1	471.2	443.6	288.7	300.6	238.4	122.6	110.6	105.8	105.8	74.7
45.5	480.4	464.3	505.6	528.5	411.1	471.2	443.6	288.7	303	240.8	125	113	103.4	105.8	77.1
45.75	480.6	464.5	505.8	528.7	413.7	471.4	446.1	291.3	305.6	241	125.2	113.2	103.6	106	77.3
46	478.1	464.3	505.6	528.5	413.5	473.5	448.2	291.1	305.4	243.2	127.4	113	103.4	105.8	77.1
46.25	475.8	464.3	505.6	528.5	413.5	473.5	448.2	293.5	307.7	245.6	127.4	113	105.8	108.2	77.1
46.5	473.5	464.3	505.6	528.5	415.8	473.5	448.2	295.8	307.7	248	129.8	113	103.4	108.2	77.1
46.75	473.5	464.3	503.3	528.5	415.8	475.8	450.5	295.8	310.1	248	132.3	113	103.4	108.2	77.1
47	471.2	464.3	503.3	528.5	415.8	475.8	450.5	298.2	312.5	250.4	134.7	115.4	103.4	108.2	79.4
47.25	469.1	464.5	503.5	528.7	418.3	476	453	298.4	312.7	250.6	134.9	115.6	103.6	108.4	77.3
47.5	469.1	464.5	503.5	528.7	418.3	476	453	300.8	315.1	253	137.3	115.6	106	108.4	79.6
47.75	466.6	464.3	503.3	528.5	418.1	475.8	452.8	300.6	314.9	255.2	139.5	115.4	105.8	108.2	79.4
48	466.6	464.3	505.6	528.5	418.1	475.8	455.1	303	317.2	255.2	139.5	117.8	103.4	110.6	79.4
48.25	464.3	464.3	505.6	528.5	418.1	475.8	455.1	303	319.6	257.6	141.9	117.8	103.4	108.2	79.4
48.5	462	464.3	505.6	528.5	420.4	478.1	455.1	305.4	319.6	257.6	144.3	117.8	105.8	110.6	79.4
48.75	475.8	464.3	507.9	530.8	420.4	478.1	457.4	305.4	322	260	144.3	117.8	105.8	110.6	79.4
49	487.3	464.3	507.9	530.8	420.4	478.1	457.4	307.7	322	260	146.7	117.8	103.4	110.6	79.4
49.25	462.2	466.8	503.5	526.4	422.9	478.3	457.6	307.9	324.5	262.6	149.3	120.4	103.6	110.8	82
49.5	457.4	473.5	501.1	519.4	422.7	478.1	457.4	310.1	324.3	264.8	149.1	120.2	103.4	110.6	81.8
49.75	457.4	475.8	501.1	519.4	425.1	478.1	455.1	312.5	326.7	264.8	151.5	120.2	103.4	110.6	81.8
50	457.4	480.4	503.3	519.4	427.4	478.1	455.1	312.5	326.7	267.2	154	120.2	105.8	110.6	81.8
50.25	457.4	482.7	505.6	521.7	429.7	480.4	455.1	312.5	329.1	267.2	156.4	122.6	103.4	110.6	81.8
50.5	459.5	484.8	505.4	523.7	431.8	480.2	457.2	314.7	331.2	269.4	156.2	122.4	103.2	112.8	81.6
50.75	459.7	487.3	507.9	523.9	434.3	482.7	459.7	317.2	333.8	272	158.8	122.6	103.4	113	84.2
51	462	491.9	510.2	526.2	436.6	485	459.7	317.2	333.8	274.4	161.2	122.6	105.8	113	84.2
51.25	462	491.9	510.2	528.5	438.9	487.3	462	319.6	336.2	274.4	161.2	122.6	103.4	113	84.2
51.5	464.3	494.2	512.5	528.5	438.9	487.3	464.3	319.6	338.5	276.7	163.6	122.6	103.4	113	84.2
51.75	464.3	496.5	514.8	530.8	441.3	489.6	464.3	322	340.9	276.7	166	125	103.4	113	84.2
52	466.6	498.8	517.1	530.8	443.6	491.9	466.6	324.3	340.9	279.1	166	125	103.4	113	84.2
52.25	466.6	501.1	517.1	530.8	445.9	491.9	466.6	326.7	343.3	281.5	168.4	125	105.8	115.4	84.2
52.5	466.6	501.1	517.1	533.1	448.2	494.2	468.9	329.1	345.6	281.5	170.9	127.4	105.8	115.4	84.2
52.75	464.3	503.3	519.4	533.1	450.5	494.2	468.9	329.1	348	283.9	170.9	127.4	103.4	115.4	86.6
53	466.6	507.9	528.5	535.4	452.8	496.5	471.2	331.4	350.3	286.3	173.3	127.4	103.4	115.4	84.2
53.25	468.9	514.8	530.8	535.4	457.4	501.1	473.5	333.8	352.7	286.3	175.7	127.4	105.8	115.4	86.6
53.5	468.9	517.1	533.1	533.1	459.7	503.3	473.5	333.8	355	288.7	178.1	127.4	105.8	117.8	86.6
53.75	468.9	519.4	533.1	533.1	462	505.6	475.8	336.2	357.4	291.1	178.1	127.4	103.4	117.8	86.6
54	471.4	524.1	535.6	531	466.8	508.1	476	338.7	359.9	293.7	180.7	130	103.6	118	86.8
54.25	471.4	526.4	535.6	531	469.1	510.4	478.3	341.1	364.6	296	180.7	130	106	118	86.8
54.5	471.2	528.5	537.7	530.8	471.2	510.2	478.1	343.3	366.8	298.2	182.9	129.8	105.8	117.8	86.6
54.75	473.7	531	537.9	531	473.7	512.7	478.3	345.8	369.3	300.8	185.5	130	106	118	86.8
55	473.5	530.8	537.7	530.8	475.8	514.8	480.4	348	371.5	303	187.8	132.3	105.8	120.2	86.6
55.25	473.7	533.3	537.9	531	478.3	515	480.6	352.9	371.7	305.6	188	132.5	106	120.4	89.2
55.5	476	535.6	540.2	531	480.6	515	482.9	355.2	374	307.9	190.4	132.5	106	120.4	89.2
55.75	476.2	535.8	540.4	531.2	483.1	515.2	483.1	355.4	376.6	310.5	193	132.7	106.2	120.6	89.4
56	476.2	538.1	540.4	533.5	483.1	517.5	483.1	360.1	378.9	312.9	193	132.7	106.2	120.6	89.4
56.25	478.3	537.9	542.4	533.3	485.2	517.3	482.9	362.3	381	315.1	195.2	134.9	106	120.4	89.2
56.5	478.3	540.2	542.4	533.3	487.5	519.6	485.2	364.6	383.4	317.4	197.6	134.9	106	122.8	89.2

56.75	478.5	540.4	542.6	533.5	487.7	519.8	485.4	367.2	385.9	320	200.2	135.1	106.2	123	89.4
57	478.5	540.4	542.6	535.8	490	522.1	487.7	369.5	388.2	322.4	200.2	135.1	106.2	123	89.4
57.25	480.6	542.4	542.4	535.6	489.8	521.9	487.5	371.7	388	324.5	202.4	134.9	106	122.8	89.2
57.5	480.6	542.4	544.7	535.6	492.1	521.9	489.8	376.4	392.7	326.9	204.8	137.3	106	122.8	91.6
57.75	480.6	542.4	542.4	535.6	494.4	521.9	489.8	378.7	395	329.3	207.3	137.3	106	125.2	91.6
58	480.8	542.6	544.9	535.8	494.6	524.3	490	378.9	395.2	331.8	207.5	139.9	106.2	125.4	91.8
58.25	480.8	542.6	544.9	535.8	494.6	524.3	492.3	381.2	399.9	334.2	209.9	139.9	106.2	125.4	91.8
58.5	480.8	542.6	544.9	535.8	496.9	524.3	492.3	383.6	399.9	336.6	212.3	139.9	106.2	127.8	91.8
58.75	483.1	542.6	544.9	535.8	496.9	524.3	492.3	385.9	402.2	341.3	212.3	139.9	106.2	127.8	91.8
59	483.3	542.8	545.1	536	497.1	524.5	494.8	388.4	404.8	343.9	214.9	142.5	106.4	128	92
59.25	483.1	542.6	544.9	535.8	496.9	526.6	494.6	388.2	406.9	346	217.1	142.3	106.2	127.8	91.8
59.5	483.1	542.6	544.9	538.1	496.9	526.6	496.9	390.6	409.2	348.4	219.5	142.3	106.2	130.2	91.8
59.75	483.3	545.1	545.1	538.3	499.4	526.8	497.1	393.1	409.4	350.9	219.7	142.5	106.4	130.4	92
60	483.1	544.9	544.9	538.1	499.2	526.6	496.9	395.2	411.5	353.1	221.9	142.3	106.2	130.2	94.2

Test 12

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	9.8	21.6	19.2	19.2	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
0.5	21.6	21.6	19.2	21.6	19.2	16.8	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8
0.75	28.7	23.9	19.2	21.6	19.2	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
1	40.5	31	21.6	28.7	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
1.25	54.8	40.5	23.9	40.5	19.2	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
1.5	66.7	52.4	28.7	50	19.2	19.2	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8	19.2
1.75	76.2	61.9	35.8	59.5	19.2	19.2	21.6	19.2	16.8	16.8	16.8	16.8	16.8	16.8	16.8
2	81.2	69.3	40.7	69.3	21.8	21.8	21.8	17	17	17	17	17	17	17	17
2.25	83.6	76.4	45.4	74	24.1	24.1	24.1	19.4	17	17	17	17	17	17	17
2.5	83.2	78.4	52.2	76	26.1	26.1	28.5	19	19	16.6	16.6	16.6	16.6	16.6	16.6
2.75	86	81.2	55	78.8	28.9	28.9	31.2	19.4	19.4	17	17	17	17	17	17
3	83.6	81.2	59.7	78.8	31.2	31.2	33.6	19.4	19.4	17	17	17	17	17	17
3.25	86	83.6	62.1	78.8	33.6	33.6	36	21.8	19.4	17	17	17	17	17	17
3.5	85.8	83.4	64.3	81	35.8	35.8	38.1	21.6	19.2	19.2	16.8	19.2	16.8	16.8	19.2
3.75	86	83.6	64.5	81.2	38.3	38.3	40.7	21.8	21.8	19.4	17	19.4	17	17	17
4	86	83.6	66.9	81.2	40.7	40.7	43.1	21.8	24.1	19.4	17	19.4	17	17	19.4
4.25	86	83.6	69.3	81.2	43.1	40.7	45.4	24.1	24.1	19.4	19.4	19.4	17	19.4	17
4.5	86	86	69.3	83.6	45.4	43.1	47.8	26.5	24.1	21.8	19.4	19.4	17	17	17
4.75	86	86	69.3	83.6	47.8	45.4	50.2	26.5	26.5	21.8	17	19.4	17	19.4	19.4
5	86	86	71.6	83.6	50.2	47.8	50.2	28.9	26.5	21.8	19.4	19.4	17	19.4	19.4
5.25	86	86	71.6	86	52.6	47.8	52.6	28.9	28.9	21.8	19.4	21.8	17	19.4	19.4
5.5	88.4	86	71.6	86	52.6	50.2	55	31.2	28.9	24.1	19.4	21.8	17	19.4	17
5.75	88.4	86	74	86	55	50.2	55	31.2	31.2	24.1	19.4	21.8	17	19.4	17
6	90.8	86	74	86	57.3	52.6	57.3	33.6	31.2	24.1	21.8	21.8	17	19.4	19.4
6.25	91	86.2	74.2	86.2	57.5	52.8	57.5	33.8	33.8	26.7	22	22	17.2	19.6	17.2
6.5	93.4	88.6	76.6	86.2	57.5	52.8	59.9	33.8	33.8	26.7	22	24.3	17.2	19.6	19.6
6.75	95.6	88.4	76.4	86	59.7	55	59.7	36	36	28.9	21.8	24.1	19.4	21.8	17
7	95.6	88.4	76.4	88.4	62.1	57.3	62.1	36	36	28.9	21.8	24.1	19.4	21.8	19.4
7.25	98	88.4	76.4	88.4	62.1	57.3	62.1	38.3	36	28.9	21.8	24.1	19.4	21.8	19.4
7.5	98	88.4	78.8	88.4	62.1	57.3	62.1	40.7	38.3	31.2	24.1	24.1	19.4	21.8	19.4
7.75	98	88.4	78.8	88.4	62.1	59.7	64.5	38.3	40.7	31.2	24.1	26.5	19.4	21.8	19.4
8	100.4	90.8	78.8	88.4	64.5	59.7	64.5	40.7	40.7	33.6	24.1	26.5	19.4	24.1	19.4
8.25	100.4	90.8	78.8	88.4	64.5	59.7	66.9	43.1	40.7	33.6	24.1	26.5	19.4	24.1	19.4
8.5	100.4	90.8	78.8	88.4	66.9	62.1	66.9	43.1	43.1	36	26.5	26.5	19.4	24.1	19.4
8.75	102.8	90.8	78.8	88.4	66.9	62.1	66.9	45.4	43.1	36	26.5	28.9	19.4	24.1	19.4
9	103	91	79	88.6	67.1	62.3	69.5	45.6	43.3	36.2	26.7	29.1	19.6	24.3	19.6
9.25	103	93.4	81.4	88.6	69.5	64.7	69.5	45.6	45.6	36.2	26.7	29.1	19.6	24.3	19.6
9.5	105.2	93.2	81.2	88.4	69.3	64.5	69.3	45.4	45.4	38.3	28.9	28.9	21.8	24.1	19.4
9.75	105.4	93.4	81.4	91	69.5	64.7	69.5	48	48	38.5	29.1	29.1	22	26.7	19.6
10	105.4	95.8	81.4	91	69.5	67.1	71.8	48	48	40.9	31.4	31.4	22	26.7	19.6
10.25	107.8	95.8	81.4	91	71.8	67.1	71.8	48	48	40.9	31.4	31.4	22	26.7	19.6
10.5	107.8	95.8	83.8	93.4	71.8	67.1	71.8	50.4	50.4	40.9	31.4	31.4	22	26.7	19.6
10.75	107.8	95.8	83.8	93.4	71.8	69.5	74.2	52.8	50.4	43.3	33.8	31.4	22	29.1	19.6
11	110.2	98.2	83.8	93.4	71.8	69.5	74.2	50.4	50.4	43.3	33.8	31.4	22	29.1	19.6
11.25	110.4	98.4	84	93.6	74.4	69.7	74.4	53	53	43.5	34	34	22.2	29.3	19.8
11.5	110.2	98.2	83.8	95.8	74.2	69.5	74.2	52.8	52.8	43.3	33.8	33.8	22	29.1	19.6
11.75	112.4	98	83.6	95.6	74	71.6	76.4	52.6	52.6	45.4	36	33.6	21.8	28.9	19.4
12	112.6	98.2	86.2	95.8	74.2	71.8	76.6	55.2	55.2	45.6	36.2	33.8	24.3	29.1	22
12.25	115	100.6	86.2	98.2	76.6	71.8	76.6	55.2	55.2	45.6	36.2	33.8	24.3	31.4	19.6
12.5	115	100.6	86.2	98.2	76.6	74.2	79	55.2	57.5	48	36.2	36.2	24.3	31.4	22
12.75	117.4	100.6	86.2	98.2	76.6	74.2	79	55.2	57.5	48	38.5	36.2	24.3	31.4	19.6
13	117.4	103	86.2	100.6	76.6	74.2	79	57.5	57.5	50.4	38.5	36.2	24.3	31.4	22

13.25	117.4	103	88.6	100.6	79	74.2	79	57.5	59.9	50.4	40.9	36.2	24.3	31.4	22
13.5	119.6	102.8	88.4	102.8	78.8	76.4	78.8	57.3	59.7	50.2	40.7	36	26.5	31.2	21.8
13.75	119.8	105.4	88.6	103	79	76.6	79	59.9	59.9	50.4	40.9	38.5	26.7	33.8	22
14	122.2	105.4	88.6	103	79	76.6	81.4	57.5	62.3	50.4	40.9	38.5	26.7	33.8	22
14.25	122.2	107.8	88.6	105.4	79	79	81.4	59.9	62.3	52.8	43.3	38.5	26.7	33.8	22
14.5	124.6	107.8	88.6	105.4	79	79	81.4	59.9	62.3	52.8	43.3	38.5	26.7	33.8	22
14.75	127	107.8	91	105.4	81.4	79	83.8	59.9	62.3	52.8	43.3	38.5	26.7	33.8	22
15	132.1	110.4	91.2	108	81.6	79.2	84	62.5	64.9	53	45.8	38.7	29.3	34	22.2
15.25	136.7	112.6	91	107.8	81.4	79	83.8	62.3	64.7	55.2	45.6	38.5	29.1	36.2	22
15.5	141.5	115	93.4	110.2	81.4	81.4	83.8	62.3	67.1	55.2	48	40.9	29.1	36.2	22
15.75	146.5	117.6	93.6	112.8	84	81.6	86.4	64.9	67.3	57.7	48.2	41.1	29.3	36.4	22.2
16	151.2	117.4	95.8	115	81.4	81.4	86.2	64.7	67.1	57.5	48	40.9	29.1	36.2	22
16.25	158.6	122.4	96	117.6	84	84	86.4	64.9	67.3	57.7	48.2	41.1	29.3	36.4	22.2
16.5	165.8	127.2	98.4	120	84	84	86.4	64.9	69.7	57.7	48.2	41.1	31.6	36.4	24.5
16.75	173.1	132.1	98.4	122.4	86.4	86.4	88.8	67.3	69.7	60.1	50.6	41.1	31.6	38.7	24.5
17	177.7	134.3	100.6	127	86.2	86.2	88.6	64.7	69.5	59.9	50.4	43.3	31.4	38.5	24.3
17.25	185.2	139.3	103.2	132.1	86.4	86.4	91.2	67.3	72	60.1	50.6	43.5	31.6	38.7	24.5
17.5	190	144.1	105.6	136.9	88.8	88.8	91.2	69.7	72	60.1	53	43.5	31.6	38.7	24.5
17.75	194.8	146.5	108	139.3	88.8	91.2	93.6	69.7	74.4	62.5	53	43.5	31.6	38.7	24.5
18	197.2	151.4	110.4	144.1	91.2	91.2	93.6	69.7	74.4	62.5	53	43.5	34	41.1	24.5
18.25	204.5	156.2	112.8	146.5	91.2	93.6	96	67.3	76.8	62.5	53	43.5	31.6	41.1	24.5
18.5	206.9	158.6	112.8	151.4	93.6	93.6	96	72	76.8	64.9	55.4	43.5	34	41.1	24.5
18.75	211.7	163.4	117.6	156.2	93.6	93.6	98.4	69.7	79.2	64.9	55.4	45.8	34	41.1	26.9
19	216.5	165.8	120	158.6	96	96	98.4	72	79.2	67.3	57.7	45.8	34	41.1	24.5
19.25	221.3	170.7	122.4	161	96	96	100.8	74.4	79.2	67.3	57.7	45.8	34	41.1	26.9
19.5	226	175.3	124.6	165.6	98.2	98.2	100.6	71.8	81.4	67.1	57.5	45.6	36.2	40.9	26.7
19.75	231	177.9	127.2	170.7	98.4	98.4	100.8	74.4	84	69.7	57.7	45.8	36.4	43.5	26.9
20	233.4	182.7	132.1	173.1	100.8	98.4	100.8	76.8	84	69.7	60.1	48.2	36.4	43.5	26.9
20.25	238	187.4	134.3	177.7	100.6	100.6	103	74.2	86.2	69.5	59.9	48	36.2	43.3	26.7
20.5	243	192.4	136.9	180.3	100.8	100.8	103.2	79.2	86.4	72	60.1	48.2	36.4	43.5	26.9
20.75	247.8	194.8	141.7	185.2	103.2	100.8	105.6	79.2	88.8	72	62.5	48.2	36.4	43.5	26.9
21	252.6	199.6	144.1	187.6	103.2	103.2	105.6	79.2	88.8	74.4	62.5	48.2	38.7	43.5	26.9
21.25	257.4	204.5	149	190	103.2	103.2	105.6	81.6	91.2	74.4	64.9	48.2	38.7	45.8	26.9
21.5	262.2	206.9	151.4	194.8	105.6	105.6	108	81.6	91.2	76.8	64.9	50.6	38.7	45.8	29.3
21.75	269.4	214.1	156.2	199.6	105.6	105.6	108	81.6	93.6	76.8	64.9	50.6	38.7	45.8	29.3
22	274.1	218.9	158.6	202.1	105.6	108	110.4	84	93.6	79.2	67.3	50.6	38.7	45.8	29.3
22.25	278.9	223.7	163.4	204.5	105.6	108	110.4	86.4	96	79.2	67.3	50.6	41.1	45.8	29.3
22.5	283.7	226.2	165.8	209.3	108	110.4	112.8	86.4	96	81.6	69.7	50.6	38.7	45.8	29.3
22.75	290.8	231	170.7	211.7	108	110.4	115.2	86.4	96	81.6	69.7	50.6	41.1	48.2	29.3
23	295.6	238.2	173.1	216.5	108	112.8	117.6	88.8	98.4	84	72	53	41.1	48.2	29.3
23.25	302.7	243	177.9	221.3	110.4	115.2	117.6	88.8	98.4	84	72	53	41.1	48.2	29.3
23.5	309.9	247.8	180.3	226.2	112.8	115.2	120	91.2	98.4	86.4	72	53	41.1	48.2	31.6
23.75	319.3	252.6	185.2	231	112.8	117.6	122.4	93.6	98.4	86.4	74.4	53	41.1	48.2	31.6
24	328.8	259.8	190	233.4	115.2	120	124.8	93.6	100.8	88.8	74.4	53	43.5	48.2	31.6
24.25	338.3	264.6	194.8	238.2	117.6	120	127.2	96	100.8	88.8	76.8	53	43.5	50.6	31.6
24.5	345.3	271.7	199.6	243	117.6	122.4	129.7	96	100.8	88.8	76.8	53	43.5	50.6	31.6
24.75	354.7	281.3	204.5	247.8	120	124.8	132.1	96	100.8	91.2	79.2	55.4	43.5	50.6	31.6
25	361.8	286.1	211.7	252.6	122.4	127.2	134.5	98.4	100.8	91.2	79.2	55.4	43.5	50.6	31.6
25.25	368.8	293.2	216.5	259.8	124.8	129.7	136.9	98.4	103.2	93.6	81.6	55.4	45.8	50.6	34
25.5	376	300.6	221.5	267.2	127.4	134.7	141.9	98.6	103.4	93.8	81.8	57.9	46	50.8	31.8
25.75	380.7	307.7	228.8	274.3	129.9	137.1	144.3	101	103.4	96.2	81.8	57.9	46	53.2	34.2
26	385.4	314.8	233.6	281.5	134.7	139.5	149.2	101	103.4	96.2	84.2	57.9	46	53.2	34.2
26.25	389.8	319.3	240.6	290.8	136.9	144.1	151.4	100.8	103.2	98.4	84	57.7	45.8	50.6	34
26.5	394.7	324.3	245.6	298.2	139.5	146.7	156.4	101	103.4	98.6	86.6	57.9	46	53.2	34.2
26.75	397	329	250.4	305.3	144.3	149.2	158.8	101	103.4	98.6	89	60.3	46	53.2	34.2
27	399.2	335.9	255	309.9	146.5	153.8	163.4	103.2	103.2	98.4	88.8	60.1	48.2	53	36.4
27.25	403.8	338.3	259.8	317	151.4	156.2	168.3	103.2	103.2	100.8	91.2	60.1	48.2	53	36.4
27.5	408.5	343	267	321.7	153.8	161	173.1	100.8	103.2	100.8	91.2	60.1	48.2	53	36.4

27.75	411	347.9	271.9	326.6	158.8	163.6	175.7	101	103.4	101	93.8	62.7	48.4	55.6	36.6
28	415.6	352.6	274.3	329	161.2	168.5	180.5	103.4	105.8	101	93.8	62.7	50.8	55.6	36.6
28.25	417.9	357.3	279.1	331.4	166	170.9	185.4	103.4	105.8	101	93.8	62.7	50.8	55.6	36.6
28.5	422.6	359.6	283.9	338.5	168.5	175.7	190.2	103.4	105.8	101	96.2	65.1	50.8	57.9	38.9
28.75	424.9	364.3	288.7	343.2	173.3	178.1	195	103.4	105.8	103.4	96.2	65.1	50.8	57.9	36.6
29	429.5	369	291	350.2	175.7	182.9	197.4	103.4	108.2	101	98.6	65.1	50.8	57.9	38.9
29.25	431.8	373.7	295.8	357.3	180.5	185.4	202.3	103.4	108.2	103.4	98.6	67.5	50.8	57.9	38.9
29.5	434.1	376	300.6	354.9	182.9	190.2	207.1	103.4	108.2	103.4	98.6	67.5	50.8	57.9	38.9
29.75	438.8	380.7	305.3	357.3	187.8	192.6	209.5	103.4	110.6	103.4	98.6	67.5	53.2	60.3	38.9
30	441.1	385.4	310.1	350.2	190.2	197.4	214.3	105.8	110.6	103.4	98.6	67.5	53.2	60.3	38.9
30.25	445.7	390	314.8	354.9	195	199.8	219.1	103.4	113	103.4	101	69.9	53.2	60.3	41.3
30.5	447.8	392.2	319.3	359.4	197.2	204.5	221.3	103.2	112.8	103.2	100.8	69.7	53	60.1	41.1
30.75	450.3	397	324.3	364.3	202.3	207.1	226.4	103.4	115.4	103.4	101	72.2	55.6	62.7	41.3
31	452.4	401.5	328.8	371.2	204.5	211.7	231	103.2	117.6	103.2	100.8	72	55.4	62.5	41.1
31.25	457	403.8	335.9	373.5	206.9	216.5	233.4	103.2	117.6	103.2	100.8	72	55.4	64.9	41.1
31.5	459.3	408.5	340.6	375.8	211.7	218.9	235.8	105.6	120	103.2	100.8	72	57.7	64.9	41.1
31.75	461.6	410.8	345.3	378.2	216.5	223.7	240.6	105.6	122.4	103.2	100.8	74.4	57.7	64.9	43.5
32	463.9	415.4	350	382.8	218.9	226.2	245.4	108	124.8	103.2	100.8	74.4	57.7	64.9	43.5
32.25	466.2	420.1	357.1	392.2	223.7	231	247.8	108	127.2	103.2	100.8	74.4	57.7	67.3	43.5
32.5	468.5	422.4	361.8	396.8	228.6	235.8	252.6	108	127.2	103.2	100.8	76.8	60.1	67.3	43.5
32.75	470.8	424.7	366.5	429.3	231	238.2	255	110.4	129.7	103.2	100.8	76.8	60.1	67.3	43.5
33	473.1	427	371.2	413.1	233.4	243	259.8	112.8	134.5	103.2	100.8	76.8	60.1	69.7	43.5
33.25	475.4	429.3	375.8	420.1	238.2	247.8	262.2	112.8	136.9	105.6	100.8	79.2	60.1	69.7	43.5
33.5	477.7	431.6	380.5	427	243	252.6	267	115.2	139.3	105.6	100.8	79.2	62.5	69.7	45.8
33.75	480	433.9	385.2	427	247.8	255	271.7	117.6	141.7	105.6	100.8	79.2	62.5	72	45.8
34	482.3	436.3	387.5	427	250.2	259.8	274.1	117.6	144.1	105.6	100.8	81.6	64.9	72	45.8
34.25	484.8	438.8	392.4	436.5	252.8	264.8	279.1	120.2	146.7	105.8	101	81.8	65.1	74.6	48.4
34.5	487.1	441.1	397	450.3	257.6	267.2	281.5	122.6	149.2	105.8	103.4	81.8	65.1	74.6	46
34.75	489.2	440.9	399.2	454.7	259.8	271.7	283.7	124.8	153.8	105.6	100.8	84	64.9	74.4	48.2
35	493.8	445.5	403.8	463.9	264.6	276.5	288.5	127.2	156.2	105.6	100.8	84	67.3	76.8	48.2
35.25	496	447.8	408.5	463.9	269.4	278.9	290.8	129.7	158.6	108	103.2	84	67.3	76.8	48.2
35.5	496	450.1	410.8	477.7	271.7	283.7	295.6	132.1	161	108	103.2	86.4	69.7	79.2	48.2
35.75	498.3	450.1	415.4	468.5	276.5	288.5	298	134.5	163.4	108	100.8	86.4	69.7	79.2	48.2
36	500.6	454.7	417.7	477.7	278.9	290.8	302.7	136.9	165.8	110.4	100.8	86.4	69.7	81.6	50.6
36.25	502.9	457	422.4	480	281.3	295.6	305.1	139.3	170.7	110.4	103.2	88.8	72	81.6	48.2
36.5	503.1	459.5	424.9	482.5	286.3	300.6	310.1	141.9	173.3	113	101	89	72.2	81.8	50.8
36.75	505.2	461.6	429.3	480	288.5	305.1	312.2	144.1	175.5	112.8	100.8	88.8	74.4	84	50.6
37	505.4	464.1	431.8	489.4	293.4	307.7	314.8	146.7	180.5	115.4	101	91.4	74.6	84.2	50.8
37.25	507.7	466.4	436.5	491.7	295.8	312.4	319.5	149.2	182.9	115.4	103.4	91.4	74.6	84.2	50.8
37.5	510	468.7	438.8	498.5	300.6	314.8	321.9	154	185.4	117.8	103.4	91.4	77	86.6	50.8
37.75	512.1	470.8	440.9	505.2	302.7	319.3	326.4	156.2	187.6	120	100.8	93.6	76.8	86.4	50.6
38	512.1	473.1	445.5	507.5	305.1	324.1	328.8	158.6	190	122.4	103.2	93.6	79.2	88.8	50.6
38.25	514.6	475.6	448	510	310.1	329	333.7	161.2	195	122.6	103.4	93.8	79.4	89	50.8
38.5	514.6	477.9	450.3	512.3	312.4	331.4	336.1	163.6	197.4	125	103.4	96.2	79.4	89	53.2
38.75	516.9	480.2	452.6	514.6	314.8	336.1	340.8	166	199.8	127.4	103.4	96.2	79.4	89	53.2
39	516.9	482.5	454.9	516.9	319.5	340.8	345.5	168.5	204.7	127.4	103.4	96.2	79.4	91.4	53.2
39.25	516.7	482.3	457	518.9	321.7	343	347.7	173.1	206.9	129.7	103.2	98.4	81.6	91.2	53
39.5	519.1	484.8	459.5	521.4	324.3	347.9	350.2	175.7	209.5	132.3	103.4	98.6	81.8	93.8	53.2
39.75	518.9	484.6	459.3	521.2	328.8	352.4	354.7	177.9	211.7	134.5	103.2	98.4	84	93.6	53
40	519.1	487.1	461.8	523.7	329	354.9	357.3	180.5	214.3	137.1	103.4	98.6	84.2	93.8	53.2
40.25	521.2	489.2	463.9	525.8	333.5	357.1	361.8	185.2	216.5	139.3	103.2	98.4	84	93.6	53
40.5	521.4	489.4	466.4	528.3	336.1	362	364.3	187.8	221.5	141.9	103.4	101	86.6	96.2	53.2
40.75	521.4	491.7	466.4	530.6	338.5	366.7	369	190.2	223.9	144.3	103.4	101	86.6	96.2	53.2
41	523.7	494	468.7	530.6	340.8	369	371.4	192.6	226.4	144.3	105.8	101	86.6	96.2	55.6
41.25	523.7	494	468.7	530.6	343.2	373.7	376	195	228.8	149.2	105.8	101	89	96.2	55.6
41.5	523.7	496.2	471	530.6	347.9	376	378.4	199.8	231.2	149.2	105.8	101	89	96.2	55.6
41.75	523.7	496.2	471	530.6	350.2	378.4	380.7	199.8	236	151.6	105.8	101	89	98.6	55.6
42	526	498.5	473.3	532.9	352.6	380.7	385.4	202.3	238.4	154	105.8	103.4	89	98.6	55.6

42.25	526	498.5	473.3	535.1	354.9	383	385.4	204.7	240.8	156.4	108.2	101	89	98.6	55.6
42.5	526	498.5	475.6	535.1	357.3	385.4	390	207.1	243.2	158.8	108.2	103.4	91.4	98.6	57.9
42.75	526	500.8	475.6	535.1	362	387.7	392.4	211.9	245.6	161.2	108.2	103.4	91.4	98.6	57.9
43	526	500.8	477.9	535.1	364.3	390	394.7	214.3	250.4	163.6	110.6	103.4	91.4	98.6	57.9
43.25	526	500.8	477.9	537.4	366.7	392.4	397	216.7	250.4	166	110.6	103.4	93.8	101	57.9
43.5	528.3	503.1	477.9	537.4	371.4	392.4	399.4	219.1	255.2	168.5	113	103.4	93.8	101	57.9
43.75	526	503.1	477.9	539.7	373.7	394.7	401.7	221.5	257.6	168.5	113	103.4	93.8	101	57.9
44	528.3	505.4	477.9	539.7	376	397	404	223.9	260	173.3	113	105.8	93.8	101	57.9
44.25	528.3	505.4	480.2	539.7	378.4	397	406.3	226.4	262.4	173.3	115.4	105.8	96.2	101	57.9
44.5	528.3	505.4	480.2	539.7	380.7	399.4	408.7	228.8	264.8	175.7	115.4	105.8	96.2	101	57.9
44.75	528.3	505.4	480.2	539.7	383	401.7	408.7	231.2	267.2	178.1	117.8	105.8	96.2	101	60.3
45	528.1	507.5	482.3	541.8	385.2	403.8	410.8	233.4	269.4	180.3	117.6	105.6	96	100.8	60.1
45.25	528.3	507.7	482.5	542	385.4	404	413.3	236	271.9	182.9	120.2	105.8	96.2	101	60.3
45.5	528.3	507.7	484.8	542	387.7	406.3	415.6	238.4	274.3	185.4	122.6	108.2	98.6	101	60.3
45.75	528.1	507.5	484.6	541.8	389.8	408.5	417.7	240.6	276.5	187.6	122.4	108	98.4	100.8	60.1
46	528.3	507.7	484.8	544.3	390	411	420.3	243.2	279.1	190.2	125	108.2	98.6	101	60.3
46.25	528.3	507.7	487.1	544.3	392.4	413.3	420.3	245.6	281.5	192.6	125	108.2	98.6	101	60.3
46.5	528.3	510	487.1	544.3	394.7	413.3	422.6	248	283.9	195	127.4	108.2	98.6	101	62.7
46.75	528.1	509.8	489.2	546.4	396.8	415.4	424.7	247.8	286.1	194.8	129.7	110.4	98.4	100.8	62.5
47	528.3	510	489.4	546.6	397	417.9	424.9	252.8	288.7	197.4	129.9	110.6	98.6	103.4	62.7
47.25	528.1	512.1	489.2	546.4	399.2	420.1	427	252.6	290.8	199.6	132.1	110.4	98.4	103.2	62.5
47.5	528.3	512.3	491.7	546.6	399.4	420.3	429.5	255.2	293.4	202.3	134.7	110.6	98.6	103.4	62.7
47.75	528.3	512.3	491.7	546.6	401.7	422.6	431.8	257.6	295.8	202.3	137.1	113	101	103.4	62.7
48	528.1	512.1	491.5	548.7	401.5	424.7	431.6	257.4	295.6	204.5	136.9	112.8	100.8	100.8	64.9
48.25	526	512.3	494	548.9	404	424.9	434.1	262.4	298.2	207.1	139.5	113	101	101	62.7
48.5	525.8	514.4	493.8	548.7	403.8	427	433.9	264.6	300.4	209.3	141.7	112.8	100.8	103.2	64.9
48.75	526	514.6	496.2	548.9	406.3	429.5	436.5	264.8	302.9	209.5	144.3	115.4	101	103.4	65.1
49	525.6	514.2	495.8	548.5	405.9	429.1	438.4	266.8	304.9	211.5	146.3	115	100.6	103	64.7
49.25	525.8	514.4	496	548.7	408.5	431.6	440.9	269.4	307.5	214.1	146.5	117.6	100.8	103.2	64.9
49.5	525.8	514.4	496	548.7	408.5	431.6	440.9	269.4	307.5	216.5	149	117.6	100.8	103.2	64.9
49.75	525.8	514.4	498.3	548.7	410.8	433.9	443.2	271.7	309.9	218.9	151.4	117.6	100.8	103.2	64.9
50	521.2	516.7	498.3	548.7	410.8	436.3	445.5	274.1	312.2	218.9	153.8	117.6	100.8	103.2	64.9
50.25	521.4	516.9	498.5	548.9	413.3	436.5	445.7	276.7	314.8	221.5	154	117.8	103.4	103.4	67.5
50.5	521.4	516.9	500.8	551.1	413.3	438.8	448	276.7	317.2	223.9	156.4	120.2	101	103.4	67.5
50.75	521.4	516.9	500.8	551.1	415.6	438.8	448	281.5	317.2	226.4	158.8	120.2	101	103.4	67.5
51	521.2	518.9	500.6	550.9	417.7	440.9	450.1	281.3	319.3	226.2	158.6	120	103.2	103.2	67.3
51.25	521.2	518.9	500.6	550.9	417.7	440.9	450.1	281.3	321.7	228.6	161	122.4	103.2	103.2	67.3
51.5	521.2	516.7	500.6	550.9	417.7	443.2	452.4	283.7	324.1	231	163.4	122.4	103.2	103.2	69.7
51.75	521.2	518.9	502.9	550.9	420.1	443.2	452.4	286.1	324.1	233.4	165.8	122.4	103.2	103.2	69.7
52	521.2	518.9	502.9	550.9	420.1	445.5	454.7	286.1	326.4	233.4	168.3	122.4	100.8	103.2	69.7
52.25	521.2	518.9	505.2	553.2	422.4	445.5	454.7	288.5	328.8	235.8	168.3	124.8	100.8	103.2	69.7
52.5	521.2	518.9	505.2	553.2	422.4	447.8	454.7	290.8	328.8	235.8	170.7	124.8	103.2	103.2	69.7
52.75	518.9	518.9	505.2	553.2	422.4	447.8	454.7	293.2	331.2	238.2	173.1	124.8	103.2	103.2	69.7
53	518.9	518.9	505.2	553.2	424.7	450.1	457	293.2	331.2	240.6	175.5	124.8	103.2	103.2	69.7
53.25	519.1	521.4	505.4	553.4	424.9	450.3	457.2	295.8	333.7	240.8	175.7	127.4	103.4	103.4	69.9
53.5	518.9	521.2	505.2	553.2	427	450.1	459.3	295.6	335.9	243	177.9	127.2	103.2	103.2	69.7
53.75	518.9	521.2	505.2	553.2	427	452.4	459.3	298	338.3	245.4	180.3	127.2	103.2	103.2	69.7
54	518.9	521.2	507.5	553.2	427	452.4	459.3	300.4	338.3	247.8	180.3	129.7	103.2	105.6	72
54.25	518.9	521.2	507.5	553.2	429.3	454.7	459.3	298	340.6	247.8	182.7	129.7	103.2	103.2	69.7
54.5	518.9	521.2	507.5	553.2	429.3	454.7	461.6	302.7	343	250.2	185.2	129.7	103.2	103.2	72
54.75	518.7	521	507.3	553	429.1	454.5	461.4	302.5	342.8	250	187.4	129.5	103	103	71.8
55	519.1	521.4	510	553.4	431.8	457.2	461.8	305.3	345.5	252.8	187.8	132.3	103.4	105.8	72.2
55.25	518.9	521.2	509.8	553.2	431.6	457	461.6	305.1	347.7	255	190	132.1	103.2	105.6	72
55.5	518.9	521.2	509.8	553.2	431.6	457	461.6	307.5	347.7	255	192.4	132.1	103.2	103.2	72
55.75	518.9	521.2	509.8	553.2	433.9	459.3	463.9	309.9	350	257.4	194.8	134.5	103.2	105.6	72
56	516.7	523.5	509.8	553.2	433.9	459.3	463.9	309.9	352.4	259.8	194.8	134.5	103.2	105.6	74.4
56.25	516.7	521.2	512.1	553.2	433.9	459.3	463.9	312.2	354.7	259.8	197.2	134.5	103.2	105.6	74.4
56.5	516.5	523.3	511.9	553	436.1	459.1	463.7	312	354.5	262	199.4	136.7	103	105.4	74.2

56.75	516.7	523.5	512.1	553.2	436.3	461.6	466.2	312.2	357.1	262.2	199.6	136.9	103.2	105.6	74.4
57	516.7	523.5	514.4	555.5	436.3	461.6	466.2	314.6	357.1	264.6	202.1	136.9	103.2	105.6	74.4
57.25	516.7	523.5	514.4	553.2	438.6	461.6	466.2	317	359.4	267	202.1	139.3	103.2	105.6	74.4
57.5	516.7	523.5	514.4	553.2	438.6	463.9	466.2	317	361.8	267	204.5	139.3	103.2	105.6	76.8
57.75	516.9	523.7	514.6	553.4	438.8	464.1	468.7	319.5	364.3	267.2	204.7	139.5	103.4	105.8	74.6
58	516.7	523.5	514.4	553.2	440.9	463.9	468.5	319.3	364.1	269.4	206.9	139.3	103.2	105.6	74.4
58.25	516.7	525.8	514.4	553.2	440.9	463.9	468.5	321.7	366.5	271.7	209.3	139.3	103.2	108	76.8
58.5	516.7	523.5	516.7	553.2	443.2	466.2	468.5	321.7	368.8	271.7	211.7	141.7	103.2	105.6	76.8
58.75	516.5	525.6	516.5	553	443	466	470.6	321.5	368.6	273.9	211.5	141.5	103	107.8	76.6
59	516.7	525.8	516.7	553.2	443.2	466.2	470.8	321.7	371.2	274.1	214.1	141.7	103.2	105.6	76.8
59.25	516.7	525.8	516.7	553.2	445.5	468.5	470.8	326.4	371.2	276.5	216.5	144.1	103.2	108	76.8
59.5	516.7	525.8	516.7	550.9	445.5	468.5	470.8	326.4	373.5	278.9	216.5	144.1	103.2	108	76.8
59.75	514.4	525.8	516.7	550.9	447.8	468.5	473.1	326.4	373.5	278.9	218.9	144.1	103.2	108	79.2
60	514.4	525.8	516.7	550.9	447.8	468.5	473.1	328.8	375.8	278.9	218.9	144.1	103.2	108	76.8
60.25	514.4	525.8	516.7	550.9	447.8	468.5	473.1	328.8	378.2	281.3	221.3	146.5	103.2	108	79.2
60.5	514.4	525.8	516.7	548.7	450.1	468.5	473.1	328.8	378.2	281.3	223.7	146.5	103.2	108	79.2
60.75	514.2	525.6	518.7	548.5	449.9	470.6	472.9	331	380.3	283.5	223.5	148.8	103	107.8	79
61	514.4	525.8	518.9	548.7	450.1	470.8	473.1	331.2	380.5	283.7	226.2	149	103.2	108	79.2
61.25	514.4	525.8	518.9	548.7	452.4	470.8	473.1	333.5	380.5	286.1	228.6	149	103.2	110.4	79.2
61.5	514.4	525.8	518.9	548.7	452.4	470.8	475.4	333.5	382.8	286.1	228.6	149	103.2	110.4	79.2
61.75	514.2	527.9	518.7	548.5	454.5	470.6	475.2	335.7	385	288.3	230.8	151.2	103	110.2	79
62	512.1	525.8	518.9	550.9	454.7	473.1	475.4	335.9	385.2	288.5	231	151.4	103.2	110.4	79.2
62.25	514.6	528.3	519.1	553.4	454.9	473.3	475.6	336.1	385.4	291	233.6	151.6	103.4	110.6	79.4
62.5	514.4	528.1	521.2	555.5	454.7	473.1	477.7	335.9	387.5	290.8	233.4	153.8	103.2	110.4	81.6
62.75	514.2	527.9	521	557.6	456.8	472.9	477.5	338.1	387.3	293	235.6	153.6	103	110.2	81.4
63	512.1	528.1	523.5	557.8	457	475.4	477.7	338.3	389.8	293.2	235.8	153.8	103.2	110.4	81.6
63.25	512.1	530.4	523.5	560.1	457	475.4	480	340.6	389.8	295.6	238.2	153.8	103.2	110.4	81.6
63.5	512.1	530.4	523.5	560.1	459.3	475.4	480	340.6	392.2	295.6	240.6	156.2	103.2	112.8	81.6
63.75	512.1	530.4	523.5	560.1	459.3	477.7	480	340.6	392.2	298	240.6	156.2	103.2	112.8	81.6
64	512.1	530.4	523.5	560.1	459.3	477.7	482.3	343	394.5	298	243	156.2	103.2	112.8	81.6
64.25	512.1	530.4	525.8	560.1	459.3	477.7	482.3	343	394.5	298	243	156.2	103.2	112.8	81.6
64.5	512.1	530.4	525.8	560.1	459.3	477.7	482.3	343	394.5	300.4	245.4	158.6	103.2	112.8	81.6
64.75	509.8	530.4	525.8	560.1	461.6	480	484.6	345.3	396.8	300.4	247.8	158.6	103.2	112.8	81.6
65	509.8	530.4	525.8	560.1	461.6	480	484.6	347.7	396.8	302.7	247.8	158.6	103.2	112.8	84
65.25	509.8	530.4	525.8	560.1	463.9	480	484.6	347.7	399.2	302.7	250.2	158.6	103.2	115.2	84
65.5	507.5	530.4	525.8	560.1	463.9	480	484.6	347.7	399.2	305.1	250.2	161	103.2	115.2	84
65.75	507.7	530.6	526	560.3	464.1	480.2	487.1	350.2	401.7	305.3	252.8	161.2	103.4	115.4	84.2
66	507.5	530.4	525.8	560.1	463.9	482.3	486.9	350	401.5	307.5	252.6	161	103.2	115.2	84
66.25	507.5	530.4	525.8	560.1	463.9	482.3	486.9	350	403.8	307.5	255	161	103.2	115.2	84
66.5	507.7	530.6	528.3	560.3	464.1	482.5	487.1	352.6	404	310.1	255.2	163.6	103.4	115.4	86.6
66.75	507.5	530.4	525.8	560.1	463.9	482.3	489.2	352.4	403.8	309.9	257.4	163.4	103.2	117.6	86.4
67	507.5	530.4	525.8	560.1	466.2	484.6	489.2	352.4	406.1	312.2	257.4	163.4	103.2	117.6	86.4
67.25	507.5	530.4	528.1	560.1	466.2	484.6	489.2	354.7	406.1	312.2	259.8	165.8	103.2	117.6	86.4
67.5	507.5	530.4	528.1	560.1	466.2	484.6	489.2	354.7	408.5	314.6	259.8	165.8	103.2	117.6	86.4
67.75	507.5	530.4	525.8	560.1	466.2	484.6	489.2	357.1	408.5	314.6	262.2	165.8	103.2	120	86.4
68	505	530.2	525.6	559.9	468.3	484.4	489	356.9	410.6	314.4	262	165.6	103	117.4	86.2
68.25	505	527.9	525.6	559.9	466	484.4	489	356.9	410.6	316.8	264.4	168.1	103	119.8	86.2
68.5	505.2	530.4	525.8	560.1	468.5	484.6	489.2	357.1	410.8	319.3	267	168.3	103.2	120	86.4
68.75	505.2	528.1	525.8	560.1	468.5	484.6	491.5	359.4	413.1	319.3	267	168.3	103.2	120	86.4
69	505.2	528.1	525.8	560.1	468.5	484.6	491.5	359.4	413.1	321.7	269.4	168.3	105.6	120	88.8

Test 13

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
0.5	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
0.75	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
1	25.9	18.8	21.2	21.2	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
1.25	38	21.4	26.1	23.8	21.4	19	19	19	19	19	19	19	19	19	19
1.5	49.6	23.6	35.4	28.3	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
1.75	59.3	28.5	45.1	35.6	21.4	19	19	19	19	19	19	19	19	19	19
2	66.3	33	56.8	42.5	23.6	21.2	21.2	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
2.25	73.4	40.1	66.3	49.6	25.9	21.2	23.6	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
2.5	78.2	47.2	71.1	56.8	28.3	23.6	25.9	21.2	18.8	18.8	18.8	18.8	18.8	18.8	16.5
2.75	80.6	52	75.8	61.5	33	23.6	30.7	21.2	18.8	21.2	18.8	18.8	18.8	18.8	18.8
3	83.2	57	80.8	66.5	38	26.1	33.2	21.4	19	21.4	19	19	19	19	19
3.25	85.6	61.7	83.2	68.9	40.3	28.5	38	23.8	19	23.8	19	19	19	19	19
3.5	85.8	66.7	83.4	71.5	45.3	31.1	40.5	24	19.2	26.3	19.2	19.2	19.2	19.2	19.2
3.75	85.8	69.1	85.8	73.8	47.6	33.4	42.9	26.3	19.2	28.7	19.2	19.2	19.2	19.2	19.2
4	86.2	71.9	86.2	76.6	52.8	36.2	45.7	26.7	19.6	29.1	19.6	19.6	19.6	19.6	19.6
4.25	86.2	74.2	86.2	79	55.2	36.2	48	29.1	19.6	31.5	19.6	19.6	19.6	19.6	19.6
4.5	86.2	76.6	86.2	81.4	57.6	38.6	52.8	29.1	19.6	33.8	19.6	19.6	19.6	19.6	19.6
4.75	88.4	78.8	88.4	81.2	59.7	40.7	52.6	31.3	21.8	36	19.4	19.4	19.4	19.4	19.4
5	88.4	78.8	88.4	81.2	62.1	43.1	55	31.3	21.8	36	19.4	19.4	19.4	21.8	19.4
5.25	88.4	81.2	88.4	81.2	64.5	43.1	57.4	33.6	21.8	38.4	19.4	21.8	19.4	21.8	19.4
5.5	88.4	81.2	88.4	83.6	66.9	45.5	59.7	36	24.2	40.7	19.4	21.8	19.4	21.8	19.4
5.75	88.2	83.4	88.2	83.4	69.1	47.6	61.9	38.2	24	40.5	19.2	21.6	19.2	21.6	19.2
6	88.4	83.6	90.8	86	69.3	50.2	62.1	38.4	26.5	43.1	19.4	24.2	19.4	24.2	19.4
6.25	88.4	83.6	90.8	86	71.7	50.2	64.5	40.7	26.5	45.5	21.8	24.2	19.4	24.2	17.1
6.5	88.4	83.6	90.8	86	71.7	52.6	64.5	43.1	28.9	45.5	21.8	24.2	19.4	24.2	17.1
6.75	88.6	86.2	91	86.2	74.2	52.8	67.1	43.3	29.1	48	22	24.4	19.6	24.4	17.3
7	90.8	86	90.8	88.4	74	55	69.3	45.5	31.3	47.8	24.2	26.5	19.4	26.5	19.4
7.25	93.4	86.2	91	88.6	76.6	55.2	69.5	48	33.8	50.4	24.4	26.7	19.6	26.7	19.6
7.5	93.2	86	90.8	88.4	76.4	57.4	69.3	47.8	33.6	50.2	24.2	28.9	19.4	26.5	19.4
7.75	95.6	88.4	90.8	88.4	78.8	57.4	71.7	50.2	36	52.6	24.2	28.9	19.4	26.5	19.4
8	95.6	86	90.8	88.4	78.8	59.7	71.7	50.2	36	52.6	26.5	28.9	21.8	28.9	19.4
8.25	95.6	88.4	90.8	88.4	78.8	59.7	71.7	50.2	38.4	55	26.5	31.3	21.8	28.9	19.4
8.5	95.6	88.4	90.8	88.4	81.2	62.1	74	52.6	38.4	55	28.9	31.3	21.8	28.9	19.4
8.75	95.4	88.2	90.6	90.6	81	61.9	73.8	52.4	40.5	54.8	28.7	31.1	21.6	31.1	16.9
9	95.6	88.4	90.8	90.8	81.2	62.1	74	55	40.7	55	28.9	33.6	21.8	31.3	19.4
9.25	98	88.4	90.8	90.8	81.2	64.5	76.4	55	43.1	57.4	31.3	33.6	24.2	31.3	17.1
9.5	97.6	88	90.4	90.4	83.2	64.1	76	54.6	42.7	57	30.9	33.2	23.8	33.2	16.7
9.75	98	88.4	90.8	90.8	83.6	64.5	76.4	57.4	43.1	59.7	33.6	36	24.2	33.6	17.1
10	98	88.4	90.8	90.8	83.6	66.9	76.4	59.7	45.5	59.7	33.6	36	24.2	33.6	17.1
10.25	100.2	88.2	90.6	90.6	83.4	66.7	76.2	57.2	47.6	59.5	33.4	35.8	24	33.4	19.2
10.5	100.2	88.2	90.6	93	83.4	66.7	78.6	59.5	47.6	61.9	35.8	38.2	26.3	35.8	19.2
10.75	100.4	90.8	90.8	93.2	86	69.3	78.8	59.7	47.8	62.1	36	38.4	26.5	36	19.4
11	100.4	90.8	90.8	93.2	86	69.3	78.8	62.1	50.2	62.1	38.4	38.4	26.5	36	17.1
11.25	102.8	90.8	90.8	93.2	86	69.3	81.2	62.1	50.2	64.5	38.4	38.4	26.5	38.4	19.4
11.5	102.8	90.8	93.2	93.2	86	69.3	81.2	62.1	52.6	64.5	38.4	40.7	26.5	38.4	17.1
11.75	102.8	90.8	93.2	93.2	86	71.7	81.2	64.5	52.6	64.5	40.7	40.7	28.9	38.4	17.1
12	102.8	90.8	93.2	93.2	86	71.7	81.2	64.5	52.6	64.5	40.7	40.7	28.9	38.4	17.1
12.25	103	91	91	95.8	88.6	71.9	81.4	64.7	55.2	67.1	40.9	40.9	29.1	40.9	17.3
12.5	105.4	91	91	95.8	88.6	74.2	81.4	67.1	55.2	67.1	43.3	43.3	29.1	40.9	19.6
12.75	105.4	91	91	95.8	88.6	74.2	81.4	69.5	55.2	67.1	43.3	43.3	31.5	40.9	19.6
13	105.4	91	91	95.8	88.6	74.2	83.8	67.1	57.6	67.1	43.3	43.3	31.5	40.9	19.6

13.25	107.8	91	93.4	95.8	88.6	74.2	83.8	69.5	57.6	67.1	45.7	43.3	31.5	43.3	17.3
13.5	107.8	91	93.4	98.2	88.6	76.6	83.8	69.5	57.6	69.5	45.7	45.7	33.8	43.3	17.3
13.75	110.2	91	93.4	98.2	88.6	76.6	83.8	69.5	59.9	69.5	45.7	45.7	31.5	43.3	19.6
14	110.2	91	93.4	98.2	91	76.6	83.8	69.5	59.9	69.5	48	45.7	33.8	43.3	17.3
14.25	112.8	91.2	93.6	98.4	91.2	76.8	84	69.7	62.5	69.7	48.2	45.9	34	45.9	17.5
14.5	112.8	91.2	93.6	100.8	91.2	76.8	86.4	69.7	62.5	69.7	48.2	48.2	34	45.9	17.5
14.75	115.2	93.6	96	100.8	91.2	76.8	86.4	72.1	62.5	69.7	50.6	48.2	36.4	45.9	17.5
15	117.6	91.2	96	100.8	91.2	79.2	86.4	72.1	62.5	72.1	50.6	48.2	36.4	45.9	17.5
15.25	117.6	91.2	96	103.2	91.2	79.2	86.4	72.1	62.5	72.1	50.6	48.2	36.4	45.9	17.5
15.5	120	93.6	98.4	103.2	91.2	79.2	86.4	72.1	64.9	72.1	53	48.2	36.4	48.2	17.5
15.75	122.4	93.6	98.4	105.6	91.2	79.2	86.4	72.1	64.9	72.1	53	50.6	38.8	48.2	17.5
16	127.2	93.6	100.8	108	91.2	79.2	86.4	74.4	64.9	72.1	53	50.6	38.8	48.2	17.5
16.25	129.5	93.4	100.6	107.8	91	81.4	86.2	74.2	67.1	71.9	52.8	50.4	38.6	50.4	17.3
16.5	132.1	93.6	103.2	110.4	93.6	81.6	86.4	74.4	67.3	72.1	53	53	38.8	50.6	17.5
16.75	136.7	93.4	105.4	112.6	93.4	81.4	88.6	74.2	67.1	74.2	55.2	52.8	38.6	50.4	17.3
17	141.7	96	105.6	115.2	93.6	81.6	88.8	74.4	67.3	74.4	55.4	53	41.1	50.6	19.8
17.25	146.7	96.2	110.6	117.8	93.8	81.8	89	77	69.9	74.6	55.6	53.2	41.3	50.8	20
17.5	151.4	96	110.4	120	93.6	84	88.8	74.4	69.7	74.4	55.4	53	41.1	53	19.8
17.75	153.8	96	115.2	122.4	96	84	91.2	76.8	69.7	74.4	57.8	53	43.5	53	19.8
18	158.6	96	117.6	124.8	96	84	91.2	76.8	72.1	74.4	57.8	55.4	43.5	53	17.5
18.25	163.4	98.4	120	127.2	96	86.4	91.2	76.8	72.1	74.4	57.8	55.4	43.5	53	17.5
18.5	165.8	98.4	122.4	132.1	96	86.4	91.2	76.8	72.1	74.4	60.1	55.4	43.5	53	19.8
18.75	170.7	98.4	124.8	134.5	96	86.4	93.6	76.8	72.1	74.4	60.1	55.4	43.5	53	17.5
19	175.3	100.6	129.5	139.1	98.2	86.2	93.4	76.6	71.9	76.6	59.9	55.2	45.7	55.2	19.6
19.25	177.7	100.6	131.9	141.5	98.2	88.6	93.4	76.6	71.9	76.6	59.9	57.6	45.7	55.2	17.3
19.5	182.5	100.6	136.7	146.3	98.2	88.6	93.4	76.6	74.2	76.6	62.3	57.6	45.7	55.2	17.3
19.75	187.4	100.6	139.1	148.7	100.6	88.6	95.8	76.6	74.2	76.6	62.3	57.6	45.7	55.2	17.3
20	192.2	100.6	143.9	153.6	100.6	88.6	95.8	79	74.2	76.6	62.3	57.6	45.7	55.2	17.3
20.25	194.6	100.6	146.3	156	100.6	91	95.8	79	74.2	76.6	62.3	57.6	48	55.2	17.3
20.5	199.8	101	151.6	161.2	103.4	91.4	98.6	79.4	77	77	62.7	60.3	48.4	58	20
20.75	204.5	103.2	153.8	163.4	103.2	91.2	98.4	79.2	76.8	79.2	62.5	60.1	48.2	57.8	19.8
21	209.5	103.4	158.8	168.5	103.4	93.8	98.6	79.4	77	79.4	65.1	60.3	48.4	58	17.7
21.25	214.3	103.4	163.6	173.3	103.4	93.8	98.6	79.4	77	79.4	65.1	60.3	48.4	58	17.7
21.5	218.9	103.2	165.8	177.9	103.2	93.6	100.8	81.6	76.8	79.2	64.9	62.5	50.6	60.1	17.5
21.75	223.9	103.4	170.9	180.5	103.4	93.8	101	81.8	79.4	81.8	67.5	62.7	50.8	60.3	17.7
22	228.8	103.4	175.7	185.4	103.4	96.2	101	81.8	79.4	81.8	67.5	62.7	50.8	60.3	17.7
22.25	235.8	105.6	180.3	190	105.6	96	100.8	81.6	79.2	81.6	67.3	62.5	50.6	62.5	17.5
22.5	240.8	105.8	185.4	195	105.8	96.2	103.4	84.2	79.4	81.8	67.5	62.7	53.2	62.7	20
22.75	245.4	105.6	190	197.2	105.6	96	103.2	84	81.6	81.6	67.3	64.9	53	62.5	17.5
23	252.8	108.2	197.4	204.7	105.8	98.6	103.4	84.2	81.8	84.2	69.9	65.1	53.2	62.7	20
23.25	257.6	110.6	202.2	209.5	105.8	98.6	105.8	84.2	81.8	84.2	67.5	65.1	53.2	62.7	17.7
23.5	262.4	113	207.1	214.3	108.2	101	108.2	86.6	81.8	84.2	69.9	65.1	53.2	65.1	20
23.75	269.6	115.4	211.9	219.1	108.2	101	108.2	86.6	81.8	86.6	69.9	65.1	53.2	65.1	20
24	276.9	115.6	216.9	226.5	108.4	101.2	108.4	86.8	84.4	86.8	70.1	65.3	55.8	65.3	20.2
24.25	284.1	120.4	224.1	231.4	110.8	101.2	110.8	86.8	84.4	86.8	70.1	65.3	55.8	65.3	17.9
24.5	288.9	122.8	229	236.2	113.2	103.6	113.2	89.2	84.4	86.8	72.5	67.7	53.4	65.3	17.9
24.75	295.8	127.4	236	243.2	113	103.4	115.4	89	86.6	86.6	72.3	67.5	55.6	67.5	17.7
25	303	129.9	240.8	250.4	115.4	103.4	117.8	91.4	86.6	89	72.3	67.5	55.6	67.5	20
25.25	307.9	134.9	248.2	255.4	118	106	120.4	91.6	86.8	89.2	72.5	70.1	55.8	67.7	17.9
25.5	314.8	139.5	252.8	260	117.8	105.8	122.6	91.4	86.6	89	72.3	69.9	58	67.5	17.7
25.75	322.1	144.5	260.2	267.4	122.8	108.4	125.2	94	89.2	91.6	74.8	70.1	58.2	67.7	17.9
26	326.7	149.1	264.8	272	125	108.2	127.4	93.8	89	91.4	74.6	69.9	58	69.9	17.7
26.25	331.4	154	272	276.7	127.4	108.2	132.3	91.4	89	91.4	74.6	69.9	60.3	69.9	17.7
26.5	335.9	158.6	276.5	281.3	129.7	110.4	134.5	93.6	91.2	91.2	74.4	69.7	60.1	69.7	17.5
26.75	340.9	163.6	281.5	286.3	134.7	113	137.1	96.2	91.4	93.8	74.6	69.9	60.3	69.9	17.7
27	345.4	168.2	288.5	290.9	139.3	112.8	141.7	96	91.2	93.6	76.8	72.1	60.1	69.7	17.5
27.25	350.1	175.5	293.2	295.6	141.7	115.2	144.1	96	91.2	93.6	76.8	72.1	60.1	69.7	17.5
27.5	357.3	180.5	300.6	298.2	146.7	115.4	149.1	96.2	91.4	93.8	77	72.3	60.3	72.3	17.7

27.75	362	185.4	307.7	303	151.6	120.2	151.6	98.6	93.8	93.8	79.4	72.3	62.7	72.3	17.7
28	366.9	190.4	312.7	307.9	154.2	120.4	156.6	96.4	94	96.4	79.6	72.5	62.9	72.5	20.2
28.25	371.6	195.2	319.8	312.7	159	122.8	159	98.8	94	96.4	79.6	74.8	62.9	72.5	20.2
28.5	376.3	200	324.5	317.4	163.8	125.2	163.8	98.8	96.4	96.4	79.6	74.8	62.9	72.5	17.9
28.75	381.2	205.1	331.8	320	168.9	127.8	166.4	99	96.6	96.6	82.2	75	63.1	72.7	20.4
29	385.6	209.7	336.3	324.5	171.1	130.1	171.1	98.8	96.4	96.4	82	74.8	62.9	74.8	17.9
29.25	388.2	214.7	343.6	327.1	176.1	132.7	173.7	101.4	96.6	99	82.2	75	65.5	75	20.4
29.5	392.6	216.9	350.5	331.6	180.7	134.9	178.3	101.2	96.4	98.8	82	77.2	65.3	74.8	20.2
29.75	395.2	221.9	355.4	336.5	185.8	137.5	180.9	101.4	99	99	82.2	77.4	65.5	75	18.1
30	399.8	226.7	362.4	338.9	190.6	139.9	185.8	101.4	99	99	84.6	77.4	65.5	75	20.4
30.25	404.5	231.6	364.8	343.6	193	142.3	188.2	101.4	99	101.4	84.6	77.4	65.5	77.4	18.1
30.5	409.1	236.4	369.5	348.3	197.8	147.1	193	101.4	101.4	101.4	84.6	77.4	67.9	77.4	20.4
30.75	411.7	239	374.4	353.2	202.8	149.7	198	101.6	101.6	101.6	84.8	77.6	68.1	77.6	18.3
31	416.3	243.8	379	355.6	207.7	152.2	200.4	99.2	101.6	101.6	87.2	80	68.1	77.6	18.3
31.25	420.9	248.6	383.7	360.3	210.1	154.6	205.3	101.6	101.6	101.6	87.2	80	68.1	80	18.3
31.5	425.4	253.2	388.2	362.4	214.7	159.2	207.5	101.4	101.4	101.4	87	79.8	70.3	77.4	18.1
31.75	430	255.6	392.8	367.1	219.5	161.6	209.9	101.4	101.4	103.8	87	79.8	67.9	79.8	18.1
32	434.4	260.2	397.3	371.6	221.7	163.8	214.5	101.2	101.2	103.6	86.8	82	70.1	79.6	17.9
32.25	443.9	265.2	402.2	374.2	226.7	168.9	217.1	101.4	103.8	106.2	89.4	82.2	70.3	79.8	18.1
32.5	446.2	270	406.8	376.5	231.6	171.3	221.9	101.4	103.8	106.2	89.4	82.2	70.3	79.8	18.1
32.75	448.5	272.4	411.5	381.2	234	176.1	224.3	101.4	101.4	106.2	89.4	82.2	72.7	82.2	18.1
33	453.3	274.9	416.3	383.7	239	178.7	226.9	104	104	108.8	92	82.4	72.9	82.4	18.3
33.25	455.6	279.7	420.9	386	241.4	181.1	231.8	101.6	104	108.8	92	84.8	72.9	82.4	18.3
33.5	457.9	282.1	425.6	388.4	246.2	186	234.2	104	104	111.2	92	84.8	72.9	82.4	18.3
33.75	462.3	284.3	427.7	390.5	248.4	188.2	236.4	103.8	103.8	113.4	91.8	84.6	75	82.2	18.1
34	464.4	291.3	432.1	395	250.6	192.8	241	103.6	103.6	113.2	91.6	84.4	74.8	82	17.9
34.25	466.9	293.8	434.6	397.5	255.6	195.4	243.6	103.8	103.8	115.8	94.2	84.6	75	82.2	20.4
34.5	469.2	301	436.9	399.8	258	197.8	248.4	103.8	103.8	115.8	94.2	84.6	75	84.6	18.1
34.75	471.7	310.7	441.8	402.4	263	202.8	251	104	104	118.4	94.4	87.2	75.2	84.8	18.3
35	474	313.1	444.1	404.7	265.4	205.3	253.4	104	106.4	120.8	94.4	87.2	75.2	84.8	18.3
35.25	476.1	315.2	446.2	406.8	270	207.5	255.6	106.2	106.2	120.6	94.2	87	77.4	84.6	18.1
35.5	478.6	317.8	451	407	272.6	210.1	260.6	106.4	106.4	123.2	96.8	87.2	77.6	84.8	18.3
35.75	480.9	317.8	453.3	409.3	274.9	214.9	263	106.4	108.8	125.6	96.8	87.2	77.6	84.8	18.3
36	480.7	317.6	455.4	411.5	277.1	217.1	265.2	108.6	108.6	125.4	96.6	87	77.4	87	18.1
36.25	483	320	457.7	413.8	281.9	221.9	267.6	108.6	108.6	127.8	96.6	89.4	79.8	87	18.1
36.5	485.3	320	457.7	416.1	284.3	224.3	270	111	111	130.3	96.6	89.4	79.8	87	18.1
36.75	487.8	322.5	460.2	416.3	286.9	226.9	272.6	111.2	111.2	132.9	96.8	89.6	80	87.2	18.3
37	494.9	325.1	462.7	418.8	289.5	232	277.5	113.8	113.8	133.1	99.4	89.8	80.2	89.8	18.5
37.25	494.7	327.3	464.8	420.9	291.7	234.2	279.7	116	113.6	135.3	99.2	89.6	80	89.6	18.3
37.5	497	332	464.8	420.9	294	239	282.1	118.4	116	137.7	99.2	92	80	87.2	18.3
37.75	499.3	332	467.1	423.3	296.4	241.4	284.5	118.4	116	140.1	99.2	92	82.4	89.6	18.3
38	499	336.5	466.9	423.1	298.6	243.6	284.3	120.6	118.2	142.3	99	91.8	82.2	89.4	18.1
38.25	501.5	339.1	469.4	423.3	301.2	246.2	289.3	123.2	120.8	144.9	99.2	92	82.4	89.6	18.3
38.5	501.3	338.9	471.5	425.4	303.4	248.4	291.5	123	123	144.7	99	91.8	82.2	91.8	18.1
38.75	503.6	341.3	471.5	425.4	305.7	250.8	293.8	125.4	123	147.1	99	91.8	82.2	91.8	18.1
39	503.6	343.6	471.5	427.7	308.1	253.2	296.2	127.8	125.4	149.5	99	91.8	82.2	89.4	18.1
39.25	506.1	346.2	471.7	427.9	308.3	255.8	298.8	128	128	152.2	99.2	92	84.8	92	18.3
39.5	505.9	348.3	473.8	427.7	310.5	260.4	298.6	130.3	130.3	154.4	101.4	94.2	84.6	91.8	18.1
39.75	508.4	350.9	474	430.2	313.1	260.6	301.2	132.9	130.5	157	101.6	94.4	84.8	92	18.3
40	506.1	353.2	476.3	432.5	315.4	265.4	303.6	135.3	132.9	157	101.6	92	84.8	92	18.3
40.25	506.3	355.8	476.5	432.7	315.6	268	306.1	137.9	135.5	159.6	101.8	94.6	85	92.2	18.5
40.5	508.4	357.9	476.3	432.5	317.8	270.2	308.3	137.7	137.7	161.8	101.6	94.4	84.8	92	18.3
40.75	508.4	357.9	478.6	432.5	320.2	272.6	310.7	140.1	140.1	164.2	101.6	94.4	87.2	92	18.3
41	508.4	360.3	478.6	434.8	320.2	274.9	313.1	142.5	142.5	166.6	101.6	94.4	87.2	94.4	18.3
41.25	508.4	362.6	478.6	434.8	322.5	277.3	313.1	144.9	144.9	166.6	101.6	94.4	87.2	94.4	18.3
41.5	506.3	362.8	481.1	437.3	325.1	277.5	315.6	147.5	147.5	169.3	101.8	97	87.4	94.6	18.5
41.75	506.3	365.2	481.1	435	327.5	279.9	318	149.9	149.9	171.7	101.8	97	87.4	94.6	18.5
42	506.5	367.7	481.3	437.5	327.7	282.5	320.6	152.6	150.1	171.9	102	97.2	87.6	94.8	18.7

42.25	506.1	369.7	483.2	437.1	329.6	284.5	322.5	154.6	154.6	173.9	101.6	96.8	89.6	94.4	18.3
42.5	503.8	369.7	483.2	439.5	329.6	284.5	322.5	157	154.6	176.3	101.6	96.8	89.6	94.4	18.3
42.75	504	369.9	483.4	439.7	332.2	287.1	325.1	159.6	157.2	178.9	104.2	97	89.8	97	18.5
43	504	369.9	483.4	442	332.2	289.5	327.5	162	159.6	181.3	104.2	97	89.8	97	18.5
43.25	506.5	370.1	485.9	442.2	334.8	292.1	327.7	162.2	162.2	181.5	104.4	97.2	90	97.2	18.7
43.5	506.3	372.2	485.7	442	334.6	294.2	329.8	164.4	164.4	183.7	101.8	99.4	92.2	97	18.5
43.75	506.3	372.2	488	442	336.9	296.6	332.2	166.8	166.8	186.2	104.2	99.4	92.2	97	20.8
44	506.1	372	487.8	444.1	339.1	298.8	332	169.1	169.1	186	104	99.2	92	96.8	18.3
44.25	505.9	371.8	487.6	443.9	338.9	298.6	334.2	168.9	168.9	188.2	103.8	99	91.8	99	18.1
44.5	505.9	371.8	487.6	443.9	338.9	301	334.2	171.3	171.3	190.6	103.8	99	91.8	99	18.1
44.75	506.1	374.4	487.8	444.1	341.5	303.6	336.7	173.9	173.9	193.2	104	99.2	92	99.2	18.3
45	506.3	374.6	488	446.6	341.7	303.8	336.9	176.5	176.5	193.4	104.2	99.4	92.2	99.4	18.5
45.25	506.1	374.4	490.1	446.4	343.8	305.9	339.1	178.7	178.7	195.6	104	99.2	92	99.2	18.3
45.5	505.9	374.2	489.9	446.2	343.6	308.1	341.3	180.9	180.9	197.8	103.8	99	91.8	99	18.1
45.75	505.9	374.2	489.9	446.2	343.6	310.5	341.3	180.9	183.3	197.8	103.8	99	94.2	99	18.1
46	506.1	374.4	490.1	446.4	346.2	310.7	341.5	183.5	186	200.4	104	101.6	94.4	99.2	18.3
46.25	506.1	374.4	490.1	448.7	346.2	313.1	343.8	183.5	188.4	200.4	104	101.6	94.4	99.2	18.3
46.5	506.1	374.4	490.1	446.4	346.2	313.1	343.8	186	188.4	202.8	104	101.6	94.4	99.2	18.3
46.75	503.8	374.4	490.1	448.7	348.5	315.4	346.2	186	190.8	202.8	104	101.6	94.4	101.6	18.3
47	503.6	374.2	489.9	448.5	348.3	315.2	346	190.6	193	205.1	106.2	101.4	96.6	101.4	18.1
47.25	501.3	374.2	489.9	448.5	348.3	317.6	348.3	190.6	195.4	207.5	106.2	101.4	96.6	101.4	18.1
47.5	499	376.5	489.9	448.5	350.7	320	348.3	190.6	197.8	207.5	106.2	101.4	96.6	101.4	18.1
47.75	499.3	376.7	490.1	448.7	350.9	320.2	350.9	193.2	198	207.7	106.4	104	96.8	101.6	18.3
48	499	376.5	489.9	448.5	350.7	322.3	350.7	195.4	200.2	209.9	106.2	103.8	96.6	101.4	18.1
48.25	499.5	376.9	490.3	448.9	353.4	322.7	353.4	198.2	203	212.7	109	101.8	97	101.8	18.5
48.5	497	379	490.1	448.7	353.2	322.5	353.2	198	202.8	212.5	108.8	101.6	96.8	104	18.3
48.75	497	379	490.1	448.7	353.2	324.9	353.2	198	205.3	214.9	108.8	104	96.8	104	18.3
49	494.7	379	490.1	448.7	353.2	327.3	355.6	200.4	207.7	214.9	111.2	104	96.8	104	18.3
49.25	494.7	379	490.1	448.7	355.6	327.3	355.6	202.8	210.1	217.3	111.2	104	96.8	104	18.3
49.5	494.5	378.8	489.9	448.5	355.4	327.1	355.4	202.6	209.9	217.1	111	103.8	96.6	103.8	18.1
49.75	492.4	379	490.1	451	355.6	329.6	357.9	205.3	212.5	219.7	111.2	104	96.8	104	18.3
50	492.4	379	490.1	448.7	357.9	329.6	357.9	207.7	212.5	219.7	111.2	104	96.8	104	18.3
50.25	490.1	379	490.1	451	357.9	329.6	360.3	207.7	214.9	222.1	113.6	104	96.8	106.4	18.3
50.5	490.1	379	490.1	451	357.9	329.6	360.3	207.7	217.3	222.1	113.6	104	96.8	106.4	18.3
50.75	490.1	381.4	487.8	451	357.9	332	360.3	210.1	217.3	224.5	116	106.4	96.8	106.4	18.3
51	487.8	381.4	487.8	451	360.3	332	360.3	210.1	219.7	224.5	116	106.4	96.8	106.4	18.3
51.25	487.8	381.4	487.8	453.3	360.3	332	360.3	210.1	222.1	226.9	116	106.4	96.8	106.4	18.3
51.5	487.8	383.7	487.8	453.3	360.3	334.4	362.6	212.5	222.1	226.9	118.4	106.4	96.8	106.4	18.3
51.75	485.7	383.9	488	453.5	360.5	334.6	362.8	212.7	224.7	229.6	118.6	106.6	97	106.6	18.5
52	485.7	383.9	488	453.5	362.8	334.6	365.2	215.1	227.1	229.6	121	106.6	97	109	18.5
52.25	485.5	383.7	487.8	453.3	362.6	334.4	365	214.9	226.9	229.4	120.8	106.4	99.2	106.4	20.6
52.5	483.4	383.9	488	453.5	362.8	336.9	367.5	217.5	229.6	232	123.4	106.6	99.4	109	18.5
52.75	483.4	383.9	488	453.5	362.8	336.9	367.5	217.5	229.6	232	123.4	106.6	99.4	109	18.5
53	481.1	383.9	488	453.5	362.8	336.9	367.5	217.5	232	234.4	123.4	106.6	99.4	109	18.5
53.25	480.9	383.7	487.8	453.3	362.6	339.1	369.7	219.7	231.8	234.2	125.6	106.4	99.2	108.8	18.3
53.5	480.9	386	487.8	453.3	362.6	339.1	369.7	219.7	234.2	234.2	125.6	108.8	99.2	108.8	18.3
53.75	478.6	386	487.8	455.6	365	339.1	369.7	222.1	234.2	236.6	128	108.8	99.2	108.8	18.3
54	478.4	385.8	487.6	453.1	364.8	338.9	369.5	221.9	236.4	236.4	127.8	108.6	99	111	18.1
54.25	476.3	386	487.8	453.3	365	341.5	369.7	222.1	236.6	239	130.5	108.8	99.2	111.2	18.3
54.5	476.3	388.4	487.8	455.6	367.3	341.5	372	224.5	239	239	130.5	108.8	99.2	111.2	18.3
54.75	476.3	388.4	487.8	453.3	367.3	341.5	372	224.5	239	239	132.9	108.8	99.2	111.2	18.3
55	474.2	388.6	488	455.8	367.5	341.7	372.2	224.7	241.6	241.6	133.1	109	99.4	111.4	18.5
55.25	474.2	388.6	488	455.8	367.5	344	372.2	227.1	241.6	241.6	133.1	109	99.4	111.4	18.5
55.5	471.9	388.6	488	455.8	367.5	344	374.6	227.1	244	241.6	135.5	109	99.4	111.4	18.5
55.75	435	388.6	488	455.8	369.9	344	374.6	227.1	244	244	137.9	109	99.4	113.8	18.5
56	427.9	390.7	487.8	457.9	369.7	343.8	374.4	226.9	243.8	243.8	137.7	108.8	99.2	113.6	18.3
56.25	425.8	390.9	488	455.8	369.9	346.4	374.6	229.6	246.4	246.4	140.3	109	99.4	113.8	18.5
56.5	425.6	393	487.8	455.6	369.7	346.2	376.7	229.4	246.2	246.2	140.1	108.8	99.2	113.6	18.3

56.75	423.5	393.2	488	458.1	372.2	346.4	376.9	232	248.8	246.4	140.3	111.4	99.4	113.8	18.5
57	423.5	393.2	488	458.1	372.2	346.4	376.9	232	248.8	248.8	142.7	111.4	99.4	113.8	20.8
57.25	423.5	395.6	488	458.1	372.2	348.7	379.2	232	251.2	248.8	145.1	111.4	99.4	116.2	18.5
57.5	423.5	395.6	490.3	458.1	372.2	348.7	376.9	234.4	251.2	248.8	145.1	111.4	99.4	116.2	18.5
57.75	423.7	395.8	490.5	458.3	372.4	348.9	379.4	234.6	253.8	251.4	147.7	111.6	99.6	116.4	18.7
58	423.7	398.1	490.5	460.6	374.8	348.9	379.4	237	253.8	251.4	147.7	111.6	99.6	116.4	18.7
58.25	423.7	398.1	488.2	460.6	374.8	348.9	379.4	237	253.8	251.4	150.1	111.6	99.6	116.4	18.7
58.5	418.8	397.9	490.3	460.4	374.6	351.1	381.6	236.8	256	253.6	149.9	111.4	99.4	116.2	18.5
58.75	419	400.4	490.5	460.6	377.1	351.3	381.8	237	256.2	253.8	152.6	111.6	99.6	118.8	18.7
59	418.8	402.6	490.3	460.4	376.9	351.1	381.6	236.8	256	253.6	152.4	111.4	99.4	118.6	18.5
59.25	419	402.8	490.5	460.6	377.1	351.3	381.8	239.4	258.6	256.2	152.6	114	99.6	118.8	18.7
59.5	419	402.8	490.5	460.6	379.4	351.3	381.8	239.4	258.6	256.2	155	114	99.6	118.8	18.7
59.75	416.5	404.9	490.3	462.7	379.2	353.4	381.6	241.6	260.8	256	154.8	113.8	99.4	118.6	20.8
60	416.7	405.1	490.5	462.9	379.4	353.6	384.1	241.8	261	256.2	157.4	114	102	118.8	18.7
60.25	416.5	407.2	490.3	462.7	381.6	353.4	383.9	244	260.8	258.4	157.2	113.8	101.8	121	18.5
60.5	416.5	407.2	490.3	462.7	381.6	353.4	383.9	244	263.2	258.4	159.6	113.8	101.8	121	18.5
60.75	416.7	409.7	490.5	462.9	381.8	356	386.4	244.2	263.4	258.6	159.8	114	99.6	121.2	18.7
61	416.7	409.7	490.5	462.9	384.1	356	386.4	244.2	265.8	261	162.2	116.4	99.6	121.2	18.7
61.25	416.5	411.9	490.3	465	383.9	355.8	386.2	246.4	265.6	260.8	162	116.2	101.8	121	18.5
61.5	416.5	411.9	490.3	465	383.9	358.1	386.2	246.4	265.6	260.8	164.4	116.2	101.8	121	18.5
61.75	416.5	414.2	490.3	465	386.2	358.1	388.6	248.8	265.6	263.2	164.4	116.2	101.8	123.4	18.5
62	414	414	490.1	467.1	386	357.9	388.4	248.6	267.8	263	166.6	116	101.6	123.2	18.3
62.25	414.2	416.5	490.3	467.3	386.2	358.1	388.6	251.2	268	263.2	166.8	116.2	101.8	123.4	18.5

Test 14

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	21.6	26.4	26.4	26.4	42.9	24	26.4	24	21.6	24	21.6	21.6	21.6	21.6	21.6
0.5	19.5	28.9	33.7	28.9	47.9	24.2	26.6	24.2	24.2	24.2	21.8	21.8	21.8	21.8	21.8
0.75	21.6	33.5	40.6	31.1	50	24	28.7	26.4	24	21.6	21.6	21.6	21.6	21.6	21.6
1	19.7	41	50.4	38.6	52.8	24.4	31.5	26.8	24.4	22	22	22	22	22	22
1.25	22	50.4	57.6	48.1	55.2	26.8	36.2	29.1	22	24.4	22	22	22	22	22
1.5	22	57.6	67.1	55.2	55.2	29.1	41	29.1	24.4	22	22	22	22	22	22
1.75	21.8	62.1	74.1	59.8	55	31.3	43.1	31.3	24.2	24.2	21.8	21.8	21.8	21.8	21.8
2	21.8	69.3	78.8	64.5	57.4	33.7	45.5	33.7	24.2	24.2	21.8	21.8	21.8	21.8	21.8
2.25	19.5	76.5	83.6	69.3	55	36	47.9	36	24.2	24.2	21.8	21.8	21.8	21.8	21.8
2.5	22	83.8	91	74.3	57.6	38.6	52.8	36.2	24.4	22	22	22	22	22	22
2.75	19.7	91	93.4	76.7	57.6	43.3	55.2	41	24.4	24.4	22	22	22	22	22
3	22	95.8	98.2	81.4	57.6	45.7	57.6	41	26.8	24.4	22	22	22	22	22
3.25	19.7	98.2	100.6	83.8	60	48.1	62.3	43.3	26.8	24.4	22	22	22	22	22
3.5	22.2	100.8	103.2	88.8	62.5	53	64.9	45.9	27	24.6	22.2	22.2	22.2	22.2	22.2
3.75	20.1	103.4	103.4	91.4	62.7	55.6	67.5	48.5	27.2	24.8	22.4	22.4	22.4	22.4	22.4
4	22.4	101	103.4	93.8	62.7	58	72.3	50.8	29.5	24.8	22.4	22.4	22.4	22.4	22.4
4.25	19.9	103.2	103.2	96	62.5	60.2	74.5	53	29.3	27	22.2	22.2	22.2	22.2	22.2
4.5	19.9	103.2	103.2	98.4	62.5	64.9	76.9	53	31.7	27	22.2	24.6	22.2	22.2	22.2
4.75	19.9	103.2	105.6	100.8	62.5	64.9	79.2	57.8	31.7	27	22.2	22.2	22.2	22.2	22.2
5	20.1	105.8	108.2	103.4	65.1	67.5	81.8	58	34.3	29.5	22.4	22.4	22.4	22.4	22.4
5.25	22.4	105.8	110.6	105.8	62.7	72.3	84.2	60.4	34.3	29.5	22.4	22.4	22.4	22.4	22.4
5.5	21.8	105.2	112.4	107.6	64.5	74.1	86	62.1	36	28.9	24.2	24.2	21.8	21.8	21.8
5.75	22	107.8	115	110.2	64.7	74.3	91	62.3	36.2	31.5	24.4	24.4	22	22	22
6	22.2	108	117.6	110.4	64.9	79.2	91.2	64.9	38.8	31.7	24.6	24.6	22.2	22.2	22.2
6.25	22	110.2	119.8	112.6	64.7	81.4	93.4	67.1	38.6	33.9	24.4	24.4	22	22	22
6.5	19.7	112.6	122.2	112.6	64.7	81.4	95.8	67.1	41	33.9	24.4	24.4	22	22	22
6.75	21.8	112.4	124.4	112.4	64.5	83.6	98	66.9	43.1	36	24.2	24.2	21.8	21.8	21.8
7	21.8	114.8	126.8	114.8	64.5	86	100.4	69.3	43.1	36	26.6	24.2	21.8	24.2	21.8
7.25	19.7	115	129.4	115	64.7	86.2	103	71.9	45.7	38.6	26.8	24.4	22	22	22
7.5	19.7	117.4	131.9	117.4	64.7	88.6	103	74.3	45.7	38.6	26.8	24.4	22	22	22
7.75	22.2	117.6	134.5	117.6	67.3	91.2	105.6	72.1	48.3	41.2	27	27	22.2	22.2	22.2
8	22.4	120.2	139.5	120.2	65.1	91.4	108.2	74.7	50.8	41.4	27.2	27.2	22.4	24.8	22.4
8.25	20.3	122.8	142.1	120.4	65.3	94	108.4	77.3	53.4	43.9	29.7	27.4	22.6	25	22.6
8.5	20.3	122.8	146.9	122.8	65.3	96.4	110.8	77.3	53.4	46.3	29.7	27.4	22.6	25	22.6
8.75	20.5	125.4	149.5	123	67.9	96.6	111	77.5	56	46.5	29.9	27.6	22.8	25.2	22.8
9	20.7	130.4	154.6	125.6	68.1	99.2	113.6	80	58.6	46.7	32.5	27.8	23	25.4	23
9.25	20.7	132.9	157	128	68.1	99.2	116	80	58.6	49.1	32.5	27.8	23	25.4	23
9.5	20.5	132.7	161.6	127.8	67.9	99	115.8	82.2	60.8	51.2	32.3	27.6	22.8	25.2	22.8
9.75	23	135.3	166.6	130.4	70.5	101.6	118.4	84.8	63.3	53.8	32.5	30.1	25.4	25.4	23
10	20.5	137.5	168.8	132.7	70.3	103.8	120.6	84.6	65.5	53.6	32.3	29.9	25.2	25.2	22.8
10.25	20.9	140.3	174.1	133.1	73.1	104.2	121	87.4	65.9	56.4	35.1	30.3	25.6	28	23.2
10.5	20.9	142.7	178.9	135.5	73.1	104.2	121	89.8	68.3	56.4	35.1	30.3	25.6	28	23.2
10.75	20.3	144.5	183.1	137.3	72.5	103.6	122.8	91.6	67.7	58.2	36.8	29.7	25	27.4	22.6
11	22.6	146.9	188	139.7	72.5	103.6	122.8	91.6	70.1	60.6	36.8	29.7	25	27.4	22.6
11.25	22.4	149.1	192.6	141.9	69.9	103.4	125	93.8	72.3	62.7	36.6	29.5	24.8	27.2	22.4
11.5	20.3	151.7	197.6	144.5	70.1	103.6	125.2	96.4	72.5	62.9	39.2	29.7	25	27.4	22.6
11.75	20.5	151.9	202.6	147.1	67.9	106.2	125.4	96.6	75.1	65.5	39.4	32.3	25.2	27.6	22.8
12	20.5	154.4	207.5	149.5	70.3	106.2	127.8	96.6	77.5	65.5	41.8	32.3	25.2	27.6	22.8
12.25	22.6	159	212.1	151.7	70.1	106	127.6	98.8	77.3	67.7	41.6	32.1	25	29.7	22.6
12.5	22.6	159	219.3	154.2	70.1	108.4	130	98.8	79.6	67.7	41.6	32.1	27.4	27.4	22.6
12.75	20.5	161.6	224.3	156.8	70.3	108.6	132.7	99	79.8	70.3	44.1	32.3	27.6	29.9	22.8
13	20.5	164	231.6	159.2	70.3	111	132.7	99	82.2	72.7	44.1	32.3	27.6	29.9	22.8

13.25	23	166.6	239	164.2	70.5	111.2	132.9	99.2	84.8	72.9	46.7	34.9	27.8	30.1	23
13.5	23.2	169.2	246.4	166.8	70.7	113.8	135.5	99.4	85	75.5	46.9	35.1	28	30.3	23.2
13.75	23	171.5	251	169	70.5	116	135.3	99.2	84.8	75.3	49.1	34.9	27.8	30.1	23
14	23.2	176.5	256	171.7	70.7	118.6	137.9	101.8	87.4	77.9	49.3	35.1	28	30.3	23.2
14.25	20.9	178.9	260.8	174.1	70.7	121	140.3	101.8	87.4	77.9	49.3	35.1	28	32.7	23.2
14.5	23.2	181.3	263.2	178.9	73.1	123.4	142.7	104.2	89.8	80.2	51.7	35.1	28	32.7	23.2
14.75	20.9	186.1	268	181.3	73.1	125.8	142.7	104.2	89.8	80.2	51.7	37.4	28	32.7	23.2
15	23.2	191	272.8	186.1	70.7	128.2	145.1	104.2	89.8	82.6	51.7	37.4	30.3	32.7	23.2
15.25	20.9	195.8	277.5	188.6	73.1	133.1	147.5	106.6	92.2	82.6	54	37.4	28	32.7	23.2
15.5	21.1	200.8	280.1	193.6	73.3	135.7	150.1	109.2	92.4	85.2	56.6	37.6	28.2	35.3	23.4
15.75	21.1	203.2	284.9	196	73.3	138.1	152.5	106.8	94.8	85.2	56.6	37.6	30.5	35.3	23.4
16	20.9	207.9	289.5	200.6	75.5	140.3	154.8	109	94.6	85	56.4	37.4	30.3	35.1	23.2
16.25	23.4	212.9	294.5	205.6	75.7	142.9	157.4	109.2	94.8	87.6	59	40	30.5	35.3	23.4
16.5	21.1	217.7	299.2	208.1	75.7	145.3	159.8	111.6	94.8	87.6	59	40	30.5	35.3	23.4
16.75	21.3	220.3	304.2	210.7	75.9	150.3	162.4	111.8	97.4	90.2	59.2	40.2	30.7	35.5	23.6
17	21.3	225.1	308.9	215.5	75.9	152.7	164.8	114.2	97.4	90.2	59.2	40.2	30.7	35.5	23.6
17.25	21.3	232.4	313.7	220.3	78.3	157.6	167.2	114.2	97.4	90.2	61.6	40.2	30.7	37.8	23.6
17.5	21.3	234.8	318.4	222.7	78.3	160	169.6	114.2	99.8	92.6	61.6	40.2	30.7	37.8	23.6
17.75	21.1	239.4	323	227.3	78.1	162.2	171.9	116.4	99.6	92.4	63.7	42.4	32.9	37.6	23.4
18	21.1	241.8	330.1	229.7	78.1	167	176.7	116.4	99.6	94.8	63.7	42.4	32.9	37.6	23.4
18.25	23.6	246.8	332.6	234.8	78.3	169.6	179.3	119	99.8	95	63.9	42.6	33.1	37.8	23.6
18.5	21.3	249.2	337.4	237.2	78.3	172.1	181.7	121.4	99.8	97.4	63.9	42.6	33.1	40.2	23.6
18.75	23.8	254.2	342.3	242.2	80.8	177.1	184.3	121.6	102.4	97.6	66.5	45.1	33.3	40.4	23.8
19	21.3	256.4	346.8	246.8	78.3	179.3	189	121.4	102.2	99.8	66.3	44.9	33.1	40.2	23.6
19.25	21.3	258.8	349.2	249.2	78.3	184.1	191.4	123.8	102.2	99.8	66.3	44.9	35.5	40.2	23.6
19.5	23.8	263.8	354.1	254.2	78.5	186.7	196.4	124	102.4	102.4	68.9	45.1	33.3	40.4	23.8
19.75	21.5	266.2	358.8	254.2	80.8	191.6	198.8	126.4	104.8	102.4	68.9	45.1	35.7	42.8	23.8
20	21.7	271.2	361.3	259.2	81	194.2	201.4	129	105	102.6	69.1	45.3	35.9	43	24
20.25	21.5	273.4	365.8	261.4	80.8	196.4	203.6	128.8	104.8	104.8	71.3	47.5	35.7	42.8	23.8
20.5	21.7	276	370.7	266.4	83.4	201.4	206.2	131.4	105	105	71.5	47.7	35.9	43	24
20.75	21.7	278.3	373.1	268.8	85.8	203.8	208.7	131.4	105	105	71.5	47.7	35.9	43	24
21	21.7	283.1	375.4	271.2	85.8	206.2	211.1	133.9	105	105	73.9	47.7	35.9	45.3	24
21.25	21.5	285.3	379.9	273.4	88	210.9	213.3	133.7	104.8	104.8	73.7	49.9	35.7	45.1	23.8
21.5	24	287.9	382.4	276	85.8	213.5	218.3	136.3	107.4	105	73.9	50.1	38.2	45.3	24
21.75	21.5	292.5	384.6	278.1	88	215.7	220.5	136.1	107.2	104.8	76.1	49.9	38	45.1	23.8
22	21.7	295.1	389.4	280.7	88.2	220.7	220.7	138.7	107.4	105	76.3	50.1	38.2	45.3	24
22.25	23.8	299.6	391.6	285.3	88	222.9	225.3	140.9	107.2	104.8	76.1	49.9	38	45.1	23.8
22.5	21.7	302.2	394.1	287.9	88.2	225.5	225.5	141.1	107.4	105	76.3	52.5	38.2	47.7	24
22.75	21.5	304.4	398.6	287.7	88	230.1	230.1	143.3	107.2	104.8	78.5	52.3	38	47.5	23.8
23	21.7	309.3	401.1	290.3	88.2	232.8	230.3	143.5	107.4	105	78.7	52.5	40.6	47.7	24
23.25	21.7	311.7	403.4	292.7	88.2	235.2	235.2	145.9	107.4	105	78.7	52.5	40.6	47.7	24
23.5	21.7	316.5	405.8	297.4	88.2	240	237.6	145.9	107.4	105	81	54.8	40.6	47.7	24
23.75	21.5	318.6	410.2	297.2	85.6	242.2	239.8	148.1	107.2	104.8	80.8	54.6	40.4	49.9	23.8
24	23.6	323.2	412.3	299.4	87.8	244.4	242	150.3	107	104.6	80.6	54.4	40.2	49.7	23.6
24.25	23.2	325.1	414.3	301.4	85	246.4	244	149.9	106.6	104.2	82.6	56.4	42.2	49.3	23.2
24.5	23.4	330.1	416.8	304	87.6	249	246.6	150.1	106.8	104.4	82.8	56.6	42.4	49.5	23.4
24.75	23.2	332.2	421.2	306.2	85	253.6	248.8	152.3	106.6	104.2	82.6	56.4	42.2	51.7	23.2
25	23.4	337.2	423.7	308.7	85.2	256.2	251.4	155	109.2	104.4	85.2	56.6	42.4	51.9	23.4
25.25	23.2	339.3	425.9	310.9	87.4	258.4	253.6	154.8	109	104.2	85	56.4	42.2	51.7	23.2
25.5	23.6	344.5	428.6	313.7	90.2	261.2	256.4	157.6	109.4	104.6	85.4	59.2	42.6	52.1	23.6
25.75	23.6	346.8	433.2	316.1	92.6	266	258.8	160	109.4	104.6	85.4	59.2	44.9	54.4	23.6
26	23.6	349.2	435.5	318.4	95	268.4	261.2	160	109.4	104.6	85.4	59.2	44.9	54.4	23.6
26.25	23.6	351.5	437.8	320.8	92.6	270.8	263.6	162.4	111.8	104.6	87.8	59.2	44.9	54.4	23.6
26.5	21.1	356	439.9	323	90	273	268.2	162.2	111.6	104.4	87.6	61.4	47.1	56.6	23.4
26.75	21.3	358.6	444.8	325.5	92.6	275.6	270.8	164.8	111.8	104.6	87.8	61.6	47.3	56.8	23.6
27	23.6	363.3	447.1	327.9	92.6	277.9	273.2	167.2	114.2	104.6	90.2	61.6	47.3	56.8	23.6
27.25	21.3	365.6	449.4	330.3	97.4	282.7	275.6	169.6	114.2	104.6	90.2	63.9	47.3	56.8	23.6
27.5	21.5	368.2	451.9	332.8	95.2	285.3	278.1	172.3	114.4	104.8	90.4	64.1	47.5	57	23.8

27.75	21.5	370.5	454.2	335.2	92.8	287.7	280.5	172.3	116.8	104.8	90.4	66.5	47.5	59.4	23.8
28	21.5	372.9	456.5	337.6	92.8	292.5	282.9	174.7	116.8	104.8	90.4	66.5	49.9	59.4	23.8
28.25	23.6	375	458.6	339.7	90.2	294.7	285.1	176.9	119	107	92.6	66.3	49.7	59.2	23.6
28.5	21.3	379.7	460.9	342.1	90.2	297	287.5	179.3	119	107	92.6	66.3	49.7	59.2	23.6
28.75	23.6	382	463.2	344.5	92.6	299.4	289.9	181.7	121.4	107	92.6	68.7	49.7	61.6	23.6
29	21.5	384.6	465.7	347	95.2	304.4	292.5	184.3	121.6	104.8	95.2	68.9	52.3	61.8	23.8
29.25	23.8	389.2	468	351.7	97.6	306.8	294.9	186.7	124	104.8	95.2	68.9	52.3	61.8	23.8
29.5	23.8	391.6	470.3	354.1	100	309.1	299.6	186.7	124	107.2	95.2	71.3	52.3	64.1	23.8
29.75	24	394.1	472.8	356.6	100.2	314.1	299.8	189.4	126.6	105	95.4	71.5	52.5	64.3	24
30	23.6	396	474.7	358.6	97.4	316.1	304.2	193.8	128.6	104.6	95	71.1	54.4	63.9	23.6
30.25	23.6	400.7	477	360.9	104.6	318.4	306.6	196.2	131	107	97.4	73.5	54.4	66.3	23.6
30.5	23.4	402.8	479.1	363.1	102	320.6	308.7	198.4	133.3	104.4	97.2	73.3	54.2	66.1	23.4
30.75	20.9	405	478.9	365.2	101.8	325.1	310.9	200.6	133.1	106.6	97	75.5	54	68.3	23.2
31	23.2	409.6	481.2	365.2	101.8	327.5	313.3	200.6	135.5	106.6	97	73.1	56.4	68.3	23.2
31.25	23.2	409.6	483.5	369.9	101.8	329.9	315.7	205.4	135.5	106.6	97	75.5	56.4	68.3	23.2
31.5	20.9	411.9	483.5	372.3	101.8	334.6	318	207.9	140.3	106.6	99.4	75.5	56.4	68.3	23.2
31.75	20.9	414.3	483.5	374.6	99.4	337	320.4	207.9	140.3	104.2	99.4	77.9	56.4	68.3	23.2
32	21.3	417	486.2	377.4	99.8	339.7	323.2	210.7	143.1	107	99.8	78.3	56.8	71.1	23.6
32.25	21.5	419.5	486.4	382.2	100	344.7	325.7	210.9	145.7	107.2	100	78.5	57	71.3	23.8
32.5	21.5	421.8	488.7	384.6	100	347	328.1	215.7	148.1	107.2	100	78.5	59.4	71.3	23.8
32.75	21.5	424.1	488.7	389.2	100	349.4	330.5	215.7	150.5	107.2	102.4	80.8	59.4	73.7	23.8
33	21.5	426.5	491	391.6	102.4	354.1	332.8	220.5	152.9	107.2	102.4	80.8	59.4	73.7	23.8
33.25	24	429	493.5	394.1	102.6	356.6	335.4	220.7	155.6	109.8	102.6	81	62	73.9	24
33.5	21.7	429	493.5	396.4	102.6	361.3	335.4	223.1	158	109.8	102.6	83.4	62	76.3	24
33.75	21.7	431.3	495.8	401.1	102.6	363.7	337.8	225.5	160.4	109.8	102.6	83.4	62	76.3	24
34	21.9	433.8	496	403.6	100.4	366.2	340.3	228.1	163	112.4	102.8	83.6	62.2	76.5	24.2
34.25	21.9	436.1	498.3	406	102.8	370.9	340.3	228.1	165.4	112.4	102.8	86	64.5	76.5	24.2
34.5	21.9	438.4	500.6	408.3	105.2	373.3	342.7	230.5	165.4	114.8	102.8	86	64.5	78.9	24.2
34.75	21.9	438.4	500.6	410.6	105.2	378	342.7	233	167.8	117.2	105.2	86	66.9	78.9	24.2
35	21.9	440.7	500.6	412.9	100.4	380.3	345.1	235.4	172.7	119.6	102.8	86	66.9	78.9	24.2
35.25	22.1	443.3	503.1	415.5	100.6	382.8	347.6	235.6	175.3	122.2	105.4	88.6	67.1	81.4	24.4
35.5	24	445.2	502.7	417.4	100.2	387.1	349.6	237.6	177.3	124.2	105	88.2	66.7	81	24
35.75	23.6	447.1	504.5	419.3	97.4	386.7	349.2	239.6	176.9	126.2	104.6	87.8	68.7	80.6	23.6
36	21.3	449.4	506.8	421.6	97.4	391.4	351.5	239.6	181.7	128.6	104.6	90.2	68.7	83	23.6
36.25	23.2	451.3	508.7	423.5	97	393.3	353.5	241.6	183.7	133.1	104.2	89.8	68.3	82.6	23.2
36.5	22.8	453.2	510.6	425.5	94.2	395.2	353.1	241.2	185.7	132.7	103.8	89.4	70.3	82.2	22.8
36.75	23	455.7	510.8	428	99.2	395.4	355.6	243.8	188.4	137.7	104	89.6	70.5	82.4	23
37	22.8	455.5	510.6	430.1	94.2	397.6	357.8	246	190.6	139.9	103.8	91.8	70.3	84.6	22.8
37.25	22.8	455.5	510.6	430.1	96.6	402.2	360.1	246	193	142.3	103.8	91.8	70.3	84.6	22.8
37.5	23.2	455.9	511	432.8	97	405	362.9	248.8	195.8	145.1	104.2	92.2	73.1	85	23.2
37.75	20.9	458.2	511	432.8	97	409.6	362.9	251.2	198.2	147.5	104.2	94.6	73.1	87.4	23.2
38	23	458	510.8	434.9	94.4	409.4	365	251	200.4	152.1	104	94.4	72.9	87.2	23
38.25	23	458	513.1	434.9	94.4	414.1	365	251	202.8	154.6	104	94.4	75.3	87.2	23
38.5	20.3	459.9	512.7	436.8	94	416	369.3	255.4	207.3	159	103.6	94	74.9	89.2	22.6
38.75	22.4	464.3	514.8	438.9	93.8	418.1	369.1	255.2	209.5	161.2	103.4	93.8	74.7	89	22.4
39	22.8	464.7	515.2	439.3	94.2	423.1	371.9	255.6	212.3	164	103.8	96.6	77.5	89.4	22.8
39.25	23	464.9	515.4	439.5	96.8	425.7	374.4	258.2	214.9	166.6	104	96.8	75.3	89.6	23
39.5	22.6	464.5	517.3	441.5	94	427.6	376.4	257.8	216.9	171.1	103.6	96.4	77.3	91.6	22.6
39.75	22.8	471.6	517.5	444	94.2	427.8	376.6	260.4	219.5	173.7	103.8	96.6	77.5	91.8	22.8
40	22.8	471.6	519.8	444	94.2	432.4	378.9	260.4	221.9	176.1	103.8	99	79.8	91.8	22.8
40.25	23	474.1	520	444.2	94.4	434.9	381.4	260.6	224.5	181.1	104	99.2	80	92	23
40.5	22.6	476	519.6	446.1	94	436.8	383.4	262.6	228.9	180.7	103.6	98.8	79.6	94	22.6
40.75	22.4	475.8	521.7	448.2	93.8	438.9	385.5	262.4	231.2	185.3	103.4	98.6	79.4	93.8	22.4
41	22.4	480.4	521.7	448.2	93.8	441.3	387.8	264.8	233.6	187.8	103.4	98.6	81.8	93.8	22.4
41.25	20.1	480.4	523.9	450.5	96.2	443.6	387.8	267.2	236	192.6	103.4	98.6	81.8	93.8	22.4
41.5	22.6	480.6	524.1	450.7	94	446.1	390.4	267.4	238.6	195.2	103.6	98.8	82	94	22.6
41.75	22.8	480.8	526.6	453.2	96.6	448.6	392.9	270	241.2	197.8	103.8	101.4	84.6	96.6	22.8
42	22.8	483.1	528.9	455.5	94.2	450.9	395.2	270	246	202.6	103.8	101.4	84.6	96.6	22.8

42.25	22.4	485	528.5	455.1	93.8	452.8	394.8	272	248	204.6	105.8	101	84.2	96.2	22.4
42.5	22	486.9	530.4	454.7	91	454.7	396.8	271.6	250	206.7	103	100.6	86.2	95.8	22
42.75	21.6	491.1	532.3	456.6	90.6	458.9	398.7	273.6	252	211.1	105	100.2	85.8	97.8	21.6
43	21.6	493.4	532.3	458.9	90.6	458.9	401	275.9	254.4	213.5	102.6	100.2	85.8	97.8	21.6
43.25	21.8	493.6	532.5	459.1	93.2	461.4	403.6	278.5	257	216.1	105.2	100.4	86	98	21.8
43.5	22	493.8	532.7	461.6	93.4	463.9	403.8	278.7	259.6	221.1	105.4	100.6	88.6	98.2	22
43.75	21.8	493.6	534.8	461.4	93.2	466	405.9	278.5	264.2	223.3	105.2	102.8	88.4	100.4	21.8
44	21.2	497.6	534.2	463.1	90.2	465.4	407.6	280.3	266	227.5	104.6	102.2	87.8	97.4	21.2
44.25	21.6	500.3	536.9	465.8	93	468.1	408	280.7	268.8	230.4	105	102.6	88.2	100.2	21.6
44.5	22	500.7	537.3	466.2	93.4	468.5	410.7	283.5	271.6	233.2	105.4	103	88.6	100.6	22
44.75	22	500.7	537.3	468.5	93.4	470.8	413.1	283.5	274	238	105.4	103	91	100.6	22
45	22	500.7	537.3	468.5	95.8	473.1	415.4	285.9	276.3	240.4	107.8	103	91	100.6	22
45.25	22	502.9	537.3	468.5	95.8	473.1	415.4	285.9	281.1	242.8	107.8	103	91	103	22
45.5	21.8	507.3	537.1	472.9	95.6	472.9	417.5	288.1	283.3	245	107.6	102.8	93.2	102.8	21.8
45.75	21.6	511.7	539.1	472.7	95.4	475	419.6	287.9	285.5	249.6	109.8	102.6	93	102.6	21.6
46	21.4	516.1	541.2	474.8	92.8	477.1	421.7	290.1	287.7	251.8	109.6	102.4	92.8	102.4	21.4
46.25	21.4	518.4	541.2	477.1	92.8	477.1	421.7	292.5	290.1	254.2	112	102.4	92.8	102.4	21.4
46.5	21.6	518.6	543.7	477.3	97.8	479.6	424.3	295	295	256.8	112.2	105	95.4	102.6	21.6
46.75	19.7	516.7	541.8	477.7	98.2	480	427	295.4	297.8	262	112.6	103	95.8	103	22
47	22	519	544.1	477.7	98.2	482.3	427	297.8	300.2	264.4	115	103	95.8	103	22
47.25	22.4	523.9	542.2	478.1	98.6	482.7	429.7	298.2	303	267.2	115.4	103.4	96.2	103.4	22.4
47.5	22.4	526.2	544.5	480.4	98.6	482.7	429.7	298.2	305.4	269.6	117.8	103.4	96.2	103.4	22.4
47.75	22.4	528.5	544.5	480.4	98.6	482.7	432	300.6	310.1	272	117.8	103.4	96.2	105.8	22.4
48	22.8	528.9	544.9	480.8	96.6	485.4	432.4	303.4	312.9	277.1	120.6	106.2	99	106.2	22.8
48.25	22.8	531.2	544.9	483.1	96.6	485.4	432.4	305.8	315.3	279.5	123	106.2	99	106.2	22.8
48.5	22.4	535.4	544.5	482.7	96.2	487.3	434.3	305.4	317.2	281.5	122.6	103.4	98.6	105.8	22.4
48.75	20.1	537.7	544.5	482.7	93.8	487.3	434.3	307.7	319.6	283.9	125	105.8	98.6	103.4	22.4
49	22.4	537.7	544.5	482.7	93.8	487.3	436.6	307.7	322	286.3	127.4	105.8	101	103.4	22.4
49.25	22.4	544.5	546.8	485	91.4	489.6	436.6	310.1	324.3	288.7	129.8	105.8	101	103.4	22.4
49.5	22.2	548.9	548.9	487.1	91.2	489.4	438.7	312.3	324.1	290.9	129.6	105.6	100.8	103.2	22.2
49.75	22.4	551.4	549.1	489.6	93.8	489.6	438.9	314.9	324.3	293.5	132.3	105.8	101	103.4	22.4
50	22.2	551.2	548.9	489.4	93.6	491.7	443.4	314.7	326.5	295.6	134.5	105.6	100.8	105.6	22.2
50.25	22.4	551.4	549.1	489.6	98.6	491.9	443.6	317.2	326.7	298.2	134.7	105.8	101	105.8	22.4
50.5	22.6	553.9	549.3	492.1	98.8	492.1	446.1	319.8	329.3	300.8	137.3	106	101.2	106	22.6
50.75	20.5	556.4	551.8	492.3	99	492.3	448.6	322.4	331.8	305.8	139.9	106.2	101.4	106.2	22.8
51	23	556.6	552	492.5	99.2	492.5	448.8	322.6	334.4	308.3	142.5	108.8	101.6	104	23
51.25	23.2	556.8	552.2	495	99.4	495	451.3	325.1	337	310.9	145.1	109	104.2	106.6	23.2
51.5	20.7	554.3	552	497.1	99.2	494.8	451.1	327.3	339.1	310.7	147.3	108.8	104	106.4	23
51.75	23	554.3	554.3	497.1	101.6	497.1	453.4	329.7	341.5	313.1	149.7	108.8	104	104	23
52	22.8	558.6	554.1	499.2	96.6	496.9	453.2	331.8	343.7	315.3	149.5	108.6	103.8	106.2	22.8
52.25	22.8	556.4	554.1	499.2	96.6	499.2	455.5	334.2	346	320	151.9	111	103.8	106.2	22.8
52.5	22.8	560.9	556.4	501.5	96.6	499.2	455.5	336.6	348.4	322.4	154.4	111	103.8	106.2	22.8
52.75	22.8	556.4	556.4	503.7	96.6	499.2	457.8	336.6	350.7	324.7	156.8	111	103.8	106.2	22.8
53	22.8	558.6	556.4	503.7	96.6	501.5	460.1	338.9	353.1	327.1	159.2	111	103.8	103.8	22.8
53.25	22.8	560.9	556.4	503.7	96.6	501.5	460.1	341.3	355.4	329.5	159.2	113.4	103.8	103.8	22.8
53.5	23	561.1	556.6	506.2	99.2	501.7	462.6	343.9	358	329.7	161.8	113.6	104	104	23
53.75	20.7	563.4	558.8	506.2	99.2	501.7	462.6	348.6	360.3	334.4	164.2	113.6	104	106.4	23
54	23.2	565.9	559	508.7	97	504.1	465.1	351.1	362.9	337	166.8	113.8	106.6	106.6	23.2
54.25	23	565.7	558.8	508.5	96.8	503.9	464.9	350.9	362.7	336.8	169	113.6	104	106.4	23
54.5	20.9	570.5	561.3	511	97	506.4	467.4	353.5	365.2	341.7	171.7	113.8	104.2	106.6	23.2
54.75	23.2	568.2	561.3	511	97	506.4	467.4	355.8	369.9	344.1	171.7	116.2	104.2	106.6	23.2
55	23	570.3	561.1	513.1	94.4	508.5	469.5	358	372.1	346.2	173.9	116	106.4	106.4	23
55.25	22.6	574.4	563	512.7	94	508.1	471.4	362.3	374	348.2	175.9	115.6	103.6	106	22.6
55.5	22.2	574	564.9	514.6	93.6	510	471	364.2	376	350.1	177.9	115.2	103.2	105.6	22.2
55.75	19.9	574	567.2	516.9	93.6	510	473.3	366.6	376	352.5	180.3	117.6	103.2	103.2	22.2
56	22.2	574	567.2	519.2	93.6	512.3	475.6	368.9	380.6	354.8	182.7	117.6	105.6	105.6	22.2
56.25	22.2	571.7	569.5	521.5	96	512.3	475.6	373.6	383	357.2	185.1	117.6	105.6	105.6	22.2
56.5	20.1	567.4	569.7	521.7	96.2	512.5	478.1	373.8	385.5	359.7	185.3	120.2	105.8	105.8	22.4

56.75	22.8	565.5	570.1	524.3	94.2	512.9	480.8	378.9	388.2	362.5	188.2	120.6	103.8	103.8	22.8
57	22.8	567.8	570.1	524.3	94.2	515.2	483.1	383.6	388.2	364.8	190.6	120.6	103.8	106.2	22.8
57.25	23	563.4	570.3	526.8	96.8	517.7	483.3	386.1	390.8	365	193.2	123.2	106.4	106.4	23
57.5	23.2	563.6	572.7	527	97	517.9	485.8	386.3	393.3	369.9	195.8	123.4	106.6	106.6	23.2
57.75	23.2	568.2	572.7	527	97	517.9	485.8	388.6	395.6	369.9	198.2	123.4	104.2	104.2	23.2
58	23.4	570.7	572.9	527.2	97.2	518.1	488.3	391.2	398.2	374.8	200.8	126	104.4	106.8	23.4
58.25	23.4	570.7	575.2	529.5	97.2	520.4	490.6	395.8	400.5	374.8	200.8	126	104.4	106.8	23.4
58.5	23.4	570.7	575.2	529.5	97.2	520.4	490.6	398.2	402.8	377.2	203.2	126	106.8	106.8	23.4
58.75	23.2	565.9	575	531.6	94.6	522.5	492.7	400.3	405	379.3	205.4	125.8	106.6	106.6	23.2
59	23.2	568.2	575	533.9	94.6	522.5	492.7	405	407.3	381.6	207.9	128.2	104.2	106.6	23.2
59.25	20.9	568.2	575	531.6	94.6	522.5	495	407.3	407.3	384	210.3	128.2	106.6	106.6	23.2

Test 15

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	7.3	30.9	92.8	30.9	33.3	28.5	26.2	26.2	23.8	23.8	21.4	21.4	21.4	21.4	21.4
0.5	19.3	33.5	136.3	33.5	35.8	28.7	26.4	26.4	24	24	21.6	21.6	21.6	21.6	21.6
0.75	21.8	38.4	184.7	38.4	38.4	33.7	26.6	28.9	24.2	24.2	21.8	21.8	21.8	21.8	21.8
1	21.6	45.3	223.1	45.3	38.2	38.2	26.4	31.1	24	24	21.6	21.6	21.6	21.6	21.6
1.25	21.8	55	257	55	40.8	45.5	28.9	33.7	24.2	24.2	21.8	21.8	21.8	21.8	21.8
1.5	21.8	62.1	295.2	64.5	43.1	52.6	28.9	36	24.2	26.6	21.8	21.8	21.8	21.8	21.8
1.75	22	71.9	338.1	71.9	45.7	60	31.5	38.6	24.4	26.8	22	22	22	22	22
2	19.5	78.8	375.6	81.2	47.9	66.9	33.7	40.8	24.2	26.6	21.8	21.8	21.8	21.8	21.8
2.25	21.8	86	396.6	88.4	50.2	76.5	38.4	43.1	26.6	28.9	21.8	21.8	21.8	21.8	21.8
2.5	21.8	90.8	426.8	93.2	52.6	86	40.8	43.1	26.6	28.9	24.2	21.8	21.8	21.8	21.8
2.75	19.5	95.6	456.8	95.6	55	95.6	45.5	45.5	26.6	28.9	21.8	21.8	21.8	21.8	21.8
3	21.8	100.4	484.4	98	57.4	102.8	50.2	47.9	28.9	31.3	24.2	21.8	21.8	21.8	21.8
3.25	21.8	102.8	507.3	102.8	59.8	102.8	55	52.6	28.9	33.7	21.8	21.8	21.8	21.8	24.2
3.5	22	107.8	532.7	103	62.3	105.4	62.3	52.8	31.5	33.9	22	22	22	22	22
3.75	21.8	112.4	546.2	102.8	64.5	102.8	66.9	55	33.7	36	24.2	24.2	21.8	21.8	21.8
4	19.5	117.2	566.8	105.2	64.5	105.2	71.7	57.4	33.7	38.4	24.2	21.8	21.8	21.8	21.8
4.25	22.2	127.2	578.6	108	67.3	105.6	76.9	60.2	36.4	41.2	24.6	22.2	22.2	22.2	22.2
4.5	22	134.3	585.3	110.2	71.9	107.8	81.4	62.3	38.6	43.3	24.4	22	22	22	22
4.75	19.7	143.9	594.4	112.6	76.7	112.6	86.2	64.7	41	45.7	24.4	22	22	22	24.4
5	19.5	155.8	603.4	117.2	81.2	119.6	90.8	69.3	43.1	47.9	24.2	24.2	21.8	21.8	24.2
5.25	19.5	167.8	608	122	83.6	126.8	93.2	71.7	45.5	50.2	24.2	24.2	21.8	24.2	24.2
5.5	21.8	177.5	614.8	129.2	88.4	134.1	98	74.1	47.9	52.6	24.2	24.2	21.8	21.8	24.2
5.75	21.8	189.6	619.4	136.5	88.4	141.3	100.4	78.8	50.2	55	24.2	24.2	21.8	21.8	24.2
6	22	199.4	621.9	146.3	91	148.7	103	79	55.2	57.6	26.8	24.4	22	22	24.4
6.25	21.8	211.3	626.3	153.4	83.6	158.2	102.8	83.6	57.4	62.1	26.6	24.2	21.8	21.8	24.2
6.5	22	223.5	631.1	163.2	93.4	165.6	105.4	86.2	60	64.7	26.8	24.4	22	22	24.4
6.75	19.7	233.2	635.7	170.5	98.2	172.9	105.4	88.6	62.3	67.1	26.8	24.4	22	22	24.4
7	22	245.2	638	180.1	103	182.5	105.4	93.4	67.1	69.5	29.1	24.4	22	22	24.4
7.25	22	254.8	640.3	189.8	107.8	189.8	105.4	93.4	69.5	71.9	29.1	24.4	22	24.4	24.4
7.5	22.2	264.6	642.8	197.2	112.8	197.2	105.6	98.4	74.5	76.9	29.3	24.6	22.2	24.6	27
7.75	22.2	274.2	645.1	204.4	105.6	206.9	105.6	100.8	74.5	79.2	31.7	24.6	22.2	24.6	27
8	22.2	283.7	631.3	211.7	115.2	214.1	105.6	103.2	79.2	81.6	31.7	24.6	22.2	24.6	27
8.25	22.2	293.3	622.1	218.9	156.2	218.9	105.6	105.6	81.6	84	34.1	27	22.2	24.6	27
8.5	22	302.6	624.2	225.9	170.5	228.3	105.4	107.8	83.8	86.2	33.9	24.4	22	24.4	26.8
8.75	21.8	309.5	626.3	233	177.5	233	105.2	110	86	88.4	33.7	26.6	21.8	24.2	26.6
9	22	316.8	628.8	240.4	184.9	242.8	105.4	112.6	88.6	91	36.2	26.8	22	24.4	26.8
9.25	19.9	326.5	633.6	247.8	192.4	247.8	105.6	117.6	91.2	93.6	36.4	27	22.2	24.6	29.3
9.5	22.2	336	638.2	255	199.6	255	105.6	117.6	91.2	96	38.8	27	22.2	24.6	29.3
9.75	22.2	343.1	640.5	262.2	204.4	262.2	105.6	122.4	93.6	98.4	38.8	27	22.2	24.6	29.3
10	22.2	352.5	645.1	269.4	211.7	269.4	105.6	124.8	96	100.8	41.2	27	22.2	24.6	29.3
10.25	22.2	359.5	645.1	276.5	218.9	276.5	108	124.8	96	100.8	41.2	27	22.2	24.6	29.3
10.5	22.2	366.6	654.3	286.1	223.7	283.7	108	127.2	98.4	100.8	41.2	27	22.2	24.6	29.3
10.75	22.2	376	658.9	293.3	231	290.9	108	129.6	100.8	103.2	43.5	27	22.2	24.6	29.3
11	22.2	385.3	665.8	302.8	238.2	298	110.4	132.1	100.8	103.2	45.9	27	22.2	27	29.3
11.25	19.9	392.3	668.1	312.3	243	305.2	112.8	134.5	103.2	105.6	45.9	27	22.2	27	31.7
11.5	22.2	401.6	670.4	321.8	250.2	314.7	115.2	134.5	103.2	105.6	48.3	27	22.2	24.6	31.7
11.75	22.2	406.3	670.4	331.2	257.4	321.8	117.6	139.3	103.2	105.6	48.3	29.3	22.2	27	31.7
12	22.2	413.3	670.4	340.7	262.2	326.5	122.4	141.7	105.6	105.6	50.6	29.3	22.2	27	31.7
12.25	22.2	417.9	670.4	352.5	269.4	333.6	127.2	141.7	105.6	105.6	50.6	29.3	22.2	27	31.7
12.5	22.4	420.4	670.6	364.4	250.4	338.5	132.3	144.3	105.8	108.2	53.2	29.5	22.4	27.2	34.3
12.75	22	424.7	670.2	375.8	252.4	345.2	134.3	146.3	105.4	105.4	52.8	29.1	22	26.8	33.9
13	22	429.3	670.2	385.1	257.2	349.9	139.1	148.7	105.4	107.8	55.2	29.1	22	26.8	33.9

13.25	22	433.9	670.2	392.1	293.1	357	143.9	151.1	105.4	105.4	55.2	29.1	22	26.8	33.9
13.5	22.2	436.4	668.1	397	290.9	364.2	148.9	153.8	105.6	108	55.4	29.3	22.2	29.3	34.1
13.75	22.2	441.1	665.8	401.6	305.2	368.9	156.2	156.2	105.6	108	57.8	31.7	22.2	29.3	36.4
14	20.1	443.6	663.7	408.8	310.1	373.8	158.8	158.8	105.8	108.2	58	31.9	22.4	29.5	34.3
14.25	22.2	448	661.2	410.9	317	378.3	163.4	161	105.6	108	60.2	31.7	22.2	29.3	36.4
14.5	22.2	452.6	663.5	415.6	321.8	383	168.2	161	105.6	108	62.5	31.7	22.2	29.3	36.4
14.75	19.9	454.9	663.5	417.9	328.9	387.6	173.1	163.4	105.6	108	62.5	31.7	22.2	29.3	36.4
15	19.9	459.5	670.4	424.9	336	390	180.3	165.8	105.6	108	64.9	31.7	22.2	29.3	36.4
15.25	19.9	464.1	672.7	429.5	343.1	394.6	185.1	170.7	105.6	108	64.9	31.7	22.2	29.3	36.4
15.5	19.9	466.4	675	434.1	352.5	399.3	190	170.7	105.6	108	67.3	34.1	22.2	29.3	36.4
15.75	22.4	471.2	675.2	438.9	362.1	404.2	195	173.3	105.8	108.2	67.5	34.3	22.4	29.5	39
16	22.2	473.3	677.3	443.4	368.9	408.6	199.6	177.9	108	108	69.7	34.1	22.2	31.7	38.8
16.25	22.2	475.6	675	445.7	376	413.3	204.4	180.3	108	110.4	69.7	34.1	22.2	31.7	38.8
16.5	22.2	477.9	672.7	450.3	380.6	415.6	209.3	182.7	110.4	110.4	69.7	34.1	22.2	31.7	38.8
16.75	22.2	482.5	677.3	452.6	376	420.2	214.1	185.1	110.4	110.4	72.1	34.1	22.2	31.7	38.8
17	22.4	485	672.9	457.4	383.2	425.1	219.1	187.8	113	110.6	72.3	34.3	22.4	31.9	39
17.25	22.4	487.3	672.9	459.7	376.2	427.4	223.9	192.6	115.4	110.6	74.7	36.6	22.4	31.9	39
17.5	22.4	491.9	675.2	464.3	331.4	429.7	228.7	195	117.8	110.6	74.7	36.6	22.4	34.3	41.4
17.75	22.4	496.5	677.5	466.6	399.5	434.3	233.6	199.8	120.2	110.6	77.1	36.6	22.4	34.3	41.4
18	22.4	501.1	677.5	471.2	408.8	436.6	238.4	202.2	120.2	113	77.1	36.6	22.4	34.3	41.4
18.25	20.1	503.3	679.9	473.5	415.8	438.9	243.2	207.1	122.6	113	79.4	36.6	22.4	34.3	41.4
18.5	22.4	507.9	679.9	478.1	420.4	443.6	248	211.9	125	115.4	79.4	39	22.4	34.3	41.4
18.75	22.6	510.4	682.4	482.9	425.3	446.1	253	214.5	127.6	115.6	79.6	39.2	22.6	34.5	43.9
19	22.6	512.7	680.1	485.2	425.3	450.7	257.8	219.3	130	118	82	39.2	22.6	36.8	43.9
19.25	20.5	519.8	682.6	490	434.7	453.2	262.8	224.3	132.7	118.2	82.2	39.4	22.8	37	44.1
19.5	22.8	524.3	680.3	492.3	423.1	455.5	267.6	226.7	135.1	120.6	84.6	41.8	22.8	37	44.1
19.75	20.3	528.7	682.4	496.7	390.4	459.9	272.2	231.4	137.3	120.4	84.4	41.6	22.6	36.8	46.3
20	22.4	535.4	684.5	501.1	362.1	462	279.1	236	141.9	122.6	84.2	43.7	22.4	36.6	46.1
20.25	20.1	540	686.8	507.9	331.4	466.6	283.9	240.8	144.3	125	86.6	43.7	22.4	39	46.1
20.5	22.6	544.7	689.3	512.7	317.4	469.1	288.9	245.8	146.9	127.6	86.8	43.9	22.6	39.2	46.3
20.75	20.3	553.9	693.9	517.3	348.2	473.7	296	250.6	149.3	130	86.8	43.9	22.6	39.2	46.3
21	22.6	560.7	693.9	524.1	378.7	478.3	303.2	255.4	154.2	132.5	89.2	43.9	22.6	39.2	46.3
21.25	20.5	563.2	687.2	528.9	492.3	480.8	310.5	258	156.8	135.1	89.4	46.5	22.8	39.4	46.5
21.5	22.6	558.4	687	535.6	422.9	485.2	315.1	262.6	159	137.3	91.6	46.3	22.6	41.6	46.3
21.75	22.6	556.1	689.3	540.2	404.4	487.5	324.5	267.4	163.8	139.7	91.6	48.7	22.6	41.6	46.3
22	22.6	556.1	691.6	547	406.7	489.8	334	269.8	166.2	142.1	91.6	48.7	22.6	41.6	48.7
22.25	22.6	558.4	693.9	553.9	369.3	494.4	343.5	276.9	168.6	146.9	94	48.7	22.6	41.6	48.7
22.5	20.5	560.9	696.5	560.9	357.8	499.2	353.1	284.3	171.3	149.5	94.2	51.2	22.8	41.8	48.9
22.75	22.8	565.5	698.8	565.5	329.5	501.5	364.8	289.1	176.1	151.9	96.6	53.6	22.8	44.1	48.9
23	20.5	570.1	701.1	570.1	303.4	506	378.9	296.2	180.9	156.8	96.6	53.6	22.8	44.1	48.9
23.25	23	577.1	703.6	574.8	379.1	508.5	395.4	306	183.5	161.8	99.2	56.2	23	44.3	51.4
23.5	20.5	583.8	708.1	579.2	353.1	512.9	409.2	315.3	188.2	164	99	56	22.8	44.1	51.2
23.75	22.8	592.9	712.7	583.8	371.9	517.5	423.1	324.7	190.6	168.8	101.4	58.4	22.8	46.5	51.2
24	20.7	602.3	717.6	588.6	360.3	522.3	432.6	332	195.6	173.9	101.6	61	23	46.7	51.4
24.25	23	609.2	719.9	590.8	343.9	524.5	441.9	334.4	200.4	178.7	104	63.3	23	46.7	53.8
24.5	22.8	615.8	719.7	588.4	357.8	528.9	448.6	338.9	202.6	180.9	103.8	63.1	22.8	48.9	53.6
24.75	23	620.6	722.2	590.8	336.8	533.7	455.7	341.5	207.7	185.9	104	65.7	23	49.1	53.8
25	22.8	622.7	722	592.9	385.9	538.1	462.4	343.7	212.3	193	103.8	67.9	22.8	48.9	53.6
25.25	22.6	627.1	724.2	592.7	378.7	542.4	469.1	348.2	216.9	197.6	103.6	70.1	22.6	51	55.8
25.5	20.1	629.2	726.3	594.8	369.1	544.5	475.8	352.7	221.5	202.2	103.4	72.3	22.4	50.8	55.6
25.75	22.4	633.8	728.6	599.4	378.5	549.1	482.7	355	226.3	207.1	103.4	72.3	22.4	50.8	55.6
26	20.3	638.6	731.2	601.9	374	553.9	487.5	357.6	228.9	212.1	103.6	74.9	22.6	53.4	55.8
26.25	22.8	641.1	731.4	604.4	364.8	556.4	494.6	362.5	236.4	219.5	103.8	77.5	22.8	53.6	58.4
26.5	22.8	645.7	731.4	606.7	355.4	560.9	501.5	364.8	238.8	224.3	103.8	79.8	22.8	56	58.4
26.75	20.1	647.6	733.3	608.6	371.5	562.8	505.6	369.1	245.6	228.7	105.8	79.4	22.4	55.6	58
27	22.6	652.4	735.8	608.8	334	565.3	510.4	371.7	250.6	236.2	106	82	22.6	55.8	58.2
27.25	20.7	657.4	736.2	604.6	376.8	570.3	510.8	374.4	255.8	241.4	104	84.8	23	58.6	61
27.5	20.5	659.5	733.7	599.8	385.9	570.1	510.6	376.6	260.4	246	106.2	84.6	22.8	58.4	60.8

27.75	20.5	664.1	733.7	597.5	395.2	572.3	510.6	381.2	265.2	253.2	103.8	87	22.8	60.8	63.1
28	22.8	666.4	733.7	597.5	353.1	574.6	510.6	383.6	270	260.4	106.2	87	22.8	60.8	63.1
28.25	23	671.2	733.9	597.7	217.3	574.8	510.8	386.1	275	265.4	106.4	89.6	23	63.3	63.3
28.5	22.8	673.3	733.7	599.8	219.5	574.6	515.2	388.2	279.5	272.4	106.2	89.4	22.8	65.5	65.5
28.75	20.3	673.1	733.5	601.9	216.9	576.7	517.3	392.7	284.1	281.7	106	91.6	22.6	65.3	65.3
29	22.6	675.4	733.5	604.2	219.3	576.7	521.9	395	286.5	288.9	103.6	91.6	22.6	65.3	65.3
29.25	20.5	677.9	731.4	604.4	214.7	579.2	524.3	397.6	291.5	298.6	106.2	94.2	22.8	67.9	67.9
29.5	20.3	677.7	731.2	608.8	207.3	579	531	399.7	296	305.6	103.6	94	22.6	67.7	67.7
29.75	22.8	680.3	731.4	611.2	205	581.5	535.8	404.6	301	315.3	106.2	94.2	22.8	70.3	70.3
30	22.6	680.1	731.2	613.3	214.5	581.3	537.9	406.7	305.6	324.5	106	96.4	22.6	72.5	72.5
30.25	22.8	680.3	731.4	613.5	212.3	583.8	542.6	409.2	310.5	331.8	106.2	96.6	22.8	72.7	72.7
30.5	22.8	682.6	731.4	615.8	207.5	583.8	544.9	413.9	315.3	338.9	106.2	96.6	22.8	72.7	75.1
30.75	20.1	682.2	733.3	617.7	204.6	585.7	546.8	415.8	319.6	345.6	105.8	96.2	22.4	74.7	74.7
31	22.6	684.7	733.5	620.2	192.8	588.2	549.3	418.3	324.5	350.5	106	98.8	22.6	74.9	77.3
31.25	22.4	684.5	738	622.3	168.4	590.2	553.7	420.4	329.1	357.4	105.8	98.6	22.4	74.7	77.1
31.5	22.4	686.8	740.3	626.9	170.9	592.5	553.7	425.1	333.8	362.1	105.8	98.6	22.4	77.1	79.4
31.75	22.4	689.1	742.7	631.5	168.4	594.8	555.9	425.1	336.2	371.5	105.8	98.6	22.4	77.1	79.4
32	22.4	691.4	742.7	633.8	173.3	597.1	560.5	429.7	340.9	376.2	105.8	98.6	22.4	79.4	81.8
32.25	22.6	691.6	745.2	636.3	175.9	599.6	563	432.2	348.2	383.4	106	98.8	22.6	79.6	82
32.5	20.5	694.1	745.4	638.8	173.7	602.1	565.5	437	353.1	388.2	108.6	101.4	22.8	82.2	84.6
32.75	22.8	696.5	747.8	638.8	171.3	604.4	567.8	439.3	357.8	395.2	108.6	101.4	22.8	82.2	84.6
33	22.8	698.8	747.8	641.1	168.8	606.7	572.3	441.7	362.5	399.9	108.6	101.4	22.8	82.2	87
33.25	20.5	698.8	750.1	643.4	166.4	609	572.3	444	369.5	404.6	111	101.4	22.8	84.6	87
33.5	20.3	700.9	749.9	645.5	166.2	608.8	574.4	446.1	374	406.7	113.2	101.2	22.6	84.4	86.8
33.75	22.8	703.4	750.1	648	164	611.2	576.9	448.6	381.2	411.5	115.8	103.8	22.8	84.6	89.4
34	20.5	703.4	752.4	648	159.2	613.5	576.9	450.9	385.9	413.9	115.8	103.8	22.8	87	89.4
34.25	22.8	705.8	752.4	650.3	154.4	613.5	579.2	455.5	390.6	418.5	118.2	103.8	22.8	87	89.4
34.5	23	706	757.3	652.8	152.1	613.7	581.7	458	395.4	421	123.2	104	23	89.6	92
34.75	22.8	708.1	759.5	654.9	151.9	615.8	583.8	460.1	399.9	423.1	125.4	103.8	22.8	89.4	91.8
35	23	710.6	759.7	657.4	152.1	616	586.3	462.6	404.8	428	128	104	23	89.6	94.4
35.25	20.5	712.7	761.8	659.5	154.4	618.1	590.6	462.4	409.2	432.4	130.2	103.8	22.8	91.8	94.2
35.5	23	712.9	762	662	154.6	618.3	593.1	464.9	414.1	434.9	132.9	104	23	92	94.4
35.75	23	715.3	762	664.3	154.6	620.6	595.4	467.2	418.7	439.5	137.7	104	23	92	96.8
36	20.7	715.3	764.4	664.3	159.4	620.6	597.7	469.5	423.3	444.2	140.1	104	23	94.4	96.8
36.25	23	717.6	764.4	666.6	159.4	620.6	600	471.8	428	446.5	142.5	106.4	23	94.4	96.8
36.5	20.7	717.6	766.7	666.6	157	622.9	602.3	476.4	430.3	451.1	147.3	106.4	23	94.4	99.2
36.75	23.2	720.1	766.9	666.8	157.2	625.4	604.8	478.9	437.4	455.9	152.3	106.6	23.2	94.6	99.4
37	20.9	722.4	766.9	669.1	159.6	625.4	604.8	481.2	439.7	460.5	154.8	106.6	23.2	97	99.4
37.25	23.2	722.4	764.6	669.1	157.2	627.7	607.1	483.5	444.4	462.8	159.6	106.6	23.2	97	99.4
37.5	23.2	722.4	764.6	666.8	154.8	627.7	607.1	485.8	449	467.4	162	106.6	23.2	97	101.8
37.75	23.2	722.4	769.3	664.5	152.3	627.7	607.1	488.1	453.6	469.7	164.4	106.6	23.2	99.4	101.8
38	23.2	724.8	769.3	659.9	152.3	630	607.1	490.4	455.9	472	169.2	106.6	23.2	99.4	101.8
38.25	23.2	727.1	766.9	657.6	149.9	630	607.1	492.7	460.5	474.3	174.1	106.6	23.2	99.4	101.8
38.5	23.4	727.3	769.5	655.5	152.5	630.2	605	495.2	463	476.8	176.7	106.8	23.4	99.6	104.4
38.75	23.4	727.3	767.1	653.2	150.1	630.2	602.7	495.2	467.6	481.4	181.5	109.2	23.4	102	104.4
39	20.9	727.1	769.3	653	149.9	630	602.5	497.3	469.7	483.5	183.7	109	23.2	101.8	106.6
39.25	20.9	727.1	769.3	653	149.9	630	602.5	499.6	472	485.8	188.6	109	23.2	101.8	106.6
39.5	21.1	729.6	769.5	653.2	147.7	632.5	602.7	502.1	476.8	488.3	191.2	109.2	23.4	102	106.8
39.75	21.1	729.6	771.9	655.5	155	632.5	605	502.1	479.1	490.6	196	109.2	23.4	102	106.8
40	23.4	729.6	771.9	655.5	152.5	632.5	607.3	504.3	481.4	495.2	198.4	109.2	23.4	102	106.8
40.25	23.4	729.6	774.2	657.8	145.3	632.5	607.3	506.6	483.7	499.8	203.2	109.2	23.4	104.4	106.8
40.5	21.1	729.6	774.2	657.8	140.5	634.8	609.6	506.6	486	502.1	208.1	109.2	23.4	104.4	106.8
40.75	20.9	729.4	771.7	659.9	137.9	634.6	611.6	508.7	490.4	506.4	210.3	111.4	23.2	104.2	106.6
41	23.6	732.2	774.4	660.3	147.9	637.3	612	509.1	493.1	511.4	213.1	111.8	23.6	107	107
41.25	21.3	729.8	774.4	660.3	150.3	637.3	614.3	511.4	495.4	516	217.9	111.8	23.6	107	107

Test 16

(min)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.25	5.5	24.3	36.2	22	29.1	22	19.6	19.6	17.2	19.6	17.2	17.2	17.2	17.2	17.2
0.5	17.2	31.4	59.9	24.3	22	22	22	22	17.2	19.6	17.2	17.2	17.2	17.2	17.2
0.75	17.2	36.2	83.8	29.1	22	24.3	26.7	24.3	17.2	22	17.2	17.2	17.2	17.2	17.2
1	17.2	40.9	95.8	36.2	22	31.4	29.1	29.1	17.2	24.3	17.2	17.2	17.2	17.2	17.2
1.25	17.2	50.4	103	40.9	22	36.2	33.8	31.4	17.2	24.3	17.2	17.2	17.2	17.2	17.2
1.5	17.4	57.7	120	50.6	22.2	45.8	38.7	36.4	17.4	29.3	17.4	17.4	17.4	17.4	17.4
1.75	17.4	64.9	134.5	57.7	24.5	53	43.5	38.7	19.8	31.6	17.4	17.4	17.4	17.4	17.4
2	17.4	69.7	151.4	62.5	26.9	62.5	48.2	43.5	19.8	34	17.4	17.4	17.4	17.4	17.4
2.25	17.2	76.6	165.6	67.1	29.1	69.5	52.8	48	22	36.2	17.2	17.2	17.2	17.2	17.2
2.5	17.4	81.6	185.2	72	34	79.2	57.7	50.6	22.2	41.1	17.4	17.4	17.4	17.4	17.4
2.75	17.2	86.2	201.9	76.6	36.2	86.2	59.9	52.8	24.3	43.3	17.2	17.2	17.2	17.2	17.2
3	17.4	88.8	218.9	79.2	38.7	93.6	64.9	57.7	26.9	45.8	17.4	17.4	17.4	17.4	17.4
3.25	17.6	93.8	236	84.2	36.6	98.6	65.1	60.3	31.8	48.4	17.6	17.6	17.6	17.6	17.6
3.5	17.6	93.8	252.8	89	-31.7	101	69.9	62.7	34.2	50.8	20	17.6	17.6	17.6	17.6
3.75	17.6	98.6	267.2	91.4	-405	103.4	72.2	69.9	36.6	53.2	20	17.6	17.6	17.6	17.6
4	17.8	98.8	281.7	96.4	-68.9	103.6	74.8	70.1	41.5	55.8	20.2	17.8	17.8	17.8	17.8
4.25	17.8	98.8	296	98.8	276.9	106	77.2	74.8	46.2	58.1	22.6	17.8	17.8	17.8	17.8
4.5	17.8	103.6	307.9	101.2	265	108.4	82	77.2	51	62.9	22.6	20.2	17.8	17.8	17.8
4.75	17.8	106	319.7	101.2	137.3	113.2	84.4	79.6	53.4	65.3	22.6	20.2	17.8	17.8	17.8
5	17.8	108.4	329.2	106	91.6	118	86.8	82	60.5	67.7	24.9	20.2	17.8	17.8	17.8
5.25	17.8	113.2	341	108.4	89.2	122.8	91.6	86.8	62.9	72.4	24.9	20.2	17.8	17.8	17.8
5.5	17.8	115.6	350.4	108.4	98.8	127.6	94	89.2	70.1	74.8	27.3	22.6	17.8	17.8	17.8
5.75	18	120.6	360	111	65.5	132.7	99	94.2	75	79.8	27.5	22.8	18	18	18
6	18	123	371.8	113.4	-47.6	137.5	101.4	96.6	79.8	82.2	29.9	22.8	18	18	18
6.25	18.2	128	379	116	-77.8	142.5	104	101.6	84.8	84.8	32.4	23	18.2	18.2	18.2
6.5	18.2	130.5	381.3	118.4	-172.4	147.3	106.4	104	89.6	89.6	32.4	25.3	18.2	18.2	18.2
6.75	18.2	135.3	388.3	120.8	-82.5	154.6	108.8	108.8	92	92	34.8	25.3	18.2	18.2	18.2
7	18.2	140.1	395.3	123.2	101.6	159.4	111.2	111.2	96.8	94.4	37.2	25.3	18.2	18.2	18.2
7.25	18.2	144.9	402.3	125.6	132.9	164.2	113.6	116	99.2	96.8	39.5	25.3	18.2	18.2	18.2
7.5	18.4	150	407.1	128.2	118.6	169.3	116.2	118.6	99.4	99.4	42.1	27.9	18.4	18.4	18.4
7.75	18.2	152.2	409.3	130.5	70.5	176.3	120.8	120.8	101.6	101.6	44.3	27.7	18.2	18.2	18.2
8	18.2	159.4	413.9	135.3	23	181.1	123.2	123.2	101.6	104	46.6	27.7	18.2	18.2	18.2
8.25	18.2	161.8	418.5	140.1	34.8	188.4	125.6	125.6	101.6	106.4	49	27.7	18.2	18.2	18.2
8.5	18.4	164.4	425.7	145.1	51.6	193.4	128.2	130.7	101.8	109	51.6	30.3	18.4	18.4	18.4
8.75	18.4	169.3	430.3	150	58.7	198.2	130.7	133.1	101.8	111.4	54	30.3	18.4	18.4	18.4
9	18.6	171.9	435.1	155	61.3	203.3	135.7	135.7	102	114	58.9	30.5	18.6	18.6	18.6
9.25	18.4	176.5	439.6	157.2	65.9	210.3	137.9	137.9	101.8	113.8	61.1	32.6	18.4	18.4	18.4
9.5	18.6	179.1	444.4	162.2	70.9	215.3	140.5	140.5	102	116.4	63.7	32.8	18.6	21	18.6
9.75	18.6	181.5	449	167	75.6	222.5	142.9	142.9	102	118.8	66.1	32.8	18.6	21	18.6
10	18.4	188.6	453.4	171.7	77.8	227.2	147.5	145.1	101.8	118.6	68.3	32.6	18.4	20.8	18.4
10.25	18.4	191	458	176.5	80.2	232	150	147.5	101.8	121	73	35	18.4	20.8	18.4
10.5	18.6	196	460.5	181.5	85.2	237	152.6	152.6	102	123.6	75.6	35.2	18.6	21	18.6
10.75	18.4	198.2	464.9	186.2	89.8	244	157.2	154.8	101.8	125.8	77.8	35	18.4	20.8	18.4
11	18.4	203.1	467.2	191	94.6	248.8	162	157.2	101.8	128.2	80.2	35	18.4	20.8	18.4
11.25	18.4	207.9	471.8	195.8	99.4	253.6	164.4	159.6	101.8	128.2	85	37.4	20.8	20.8	18.4
11.5	18.4	212.7	474.1	200.6	104.2	258.4	169.3	162	104.2	130.7	87.4	37.4	18.4	23.2	18.4
11.75	18.4	217.5	476.4	205.5	109	263.2	174.1	164.4	104.2	133.1	89.8	37.4	20.8	23.2	18.4
12	18.4	219.9	483.3	210.3	116.2	268	176.5	166.8	106.6	135.5	92.2	37.4	20.8	23.2	18.4
12.25	18.4	224.7	485.6	217.5	123.4	272.7	183.7	169.3	109	137.9	94.6	39.7	20.8	23.2	18.4
12.5	18.4	229.6	487.9	222.3	128.2	277.5	186.2	171.7	109	140.3	94.6	39.7	20.8	23.2	18.4
12.75	18.6	234.6	490.4	229.8	133.3	282.5	191.2	174.3	111.6	142.9	97.2	39.9	21	23.4	18.6
13	18.6	237	495	234.6	138.1	284.9	196	176.7	111.6	145.3	99.6	39.9	21	23.4	18.6

13.25	18.8	242	495.2	239.6	143.1	289.9	201	179.3	114.2	147.9	99.8	42.5	23.6	23.6	18.8
13.5	18.6	246.6	497.2	246.6	147.7	294.4	203.3	181.5	116.4	150.2	99.6	42.3	23.4	25.7	18.6
13.75	18.8	249.2	499.7	251.6	152.8	297	208.3	184.1	119	152.8	102.2	42.5	23.6	25.9	18.8
14	18.6	253.8	501.8	256.2	155	301.6	212.9	183.9	118.8	157.4	102	42.3	23.4	25.7	18.6
14.25	18.8	258.8	504.3	261.2	160	306.5	217.9	186.6	121.4	160	102.2	42.5	23.6	25.9	18.8
14.5	18.6	261	506.4	265.8	162.2	311.1	220.1	188.8	123.6	162.2	102	44.7	23.4	28.1	18.6
14.75	18.8	263.6	508.9	270.8	164.8	313.6	222.7	191.4	128.7	164.8	102.2	44.9	23.6	28.3	18.8
15	18.8	270.8	511.2	275.5	164.8	316	227.6	196.2	128.7	167.2	102.2	44.9	23.6	28.3	18.8
15.25	18.8	275.5	513.5	280.3	167.2	320.7	230	196.2	131.1	169.7	102.2	44.9	25.9	28.3	18.8
15.5	18.8	277.9	515.8	285.1	164.8	325.5	234.8	201	135.9	174.5	102.2	47.2	25.9	28.3	18.8
15.75	18.8	285.1	518.1	289.9	164.8	330.2	237.2	203.5	138.3	176.9	102.2	47.2	25.9	30.7	18.8
16	18.8	289.9	518.1	294.6	150.4	332.6	239.6	205.9	140.7	179.3	102.2	47.2	25.9	30.7	18.8
16.25	18.8	297	520.3	299.4	145.5	337.3	244.4	205.9	143.1	181.7	102.2	47.2	28.3	30.7	18.8
16.5	18.8	304.1	522.6	304.1	135.9	339.7	246.8	208.3	145.5	184.1	102.2	49.6	28.3	30.7	18.8
16.75	19	311.5	522.8	309.1	138.5	344.6	249.4	213.3	148.1	186.8	104.8	49.8	28.5	33.2	19
17	19	316.2	525.1	311.5	143.3	349.3	254.2	215.7	150.6	189.2	102.4	49.8	28.5	33.2	19
17.25	18.8	323.1	527.2	316	143.1	353.8	256.4	217.9	155.2	191.4	102.2	52	28.3	33	18.8
17.5	19	330.4	527.4	320.9	128.9	356.3	259	220.5	157.8	196.4	102.4	52.2	28.5	33.2	19
17.75	19	335.1	529.7	325.7	119.2	361	261.4	222.9	160.2	198.8	102.4	52.2	30.9	33.2	19
18	19	335.1	532	330.4	119.2	365.7	266.2	225.3	162.6	201.2	102.4	54.6	30.9	35.6	19
18.25	19	339.9	534.3	332.8	116.8	368.1	268.6	227.8	165	203.7	104.8	54.6	30.9	35.6	19
18.5	19	342.2	534.3	337.5	119.2	372.8	271	230.2	167.4	206.1	102.4	54.6	30.9	35.6	19
18.75	19.4	345	536.9	342.6	131.7	377.8	273.7	233	170.3	208.9	105.2	55	33.6	38.4	19.4
19	19.4	349.7	539.2	345	153.4	382.5	276.1	235.4	172.7	211.3	105.2	55	33.6	38.4	19.4
19.25	19.4	352	539.2	349.7	172.7	384.8	278.5	237.8	175.1	213.7	105.2	57.4	33.6	38.4	19.4
19.5	19.4	354.4	541.5	354.4	196.8	389.5	280.9	240.2	177.5	216.1	105.2	57.4	33.6	38.4	19.4
19.75	19.4	359.1	541.5	359.1	216.1	391.8	283.3	242.6	179.9	218.5	105.2	59.7	33.6	40.7	19.4
20	19.2	361.2	543.6	361.2	237.6	394	285.5	247.2	184.5	220.7	105	59.5	35.8	40.5	19.2
20.25	19.2	363.6	543.6	365.9	261.6	396.3	290.3	249.6	187	225.5	105	61.9	35.8	40.5	19.2
20.5	19.2	365.9	545.9	368.3	275.9	398.6	292.6	252	189.4	228	105	61.9	35.8	42.9	19.2
20.75	19.4	368.5	546.1	373.2	285.7	401.2	295.2	254.6	192	230.6	107.6	62.1	38.4	43.1	19.4
21	19.4	370.8	548.4	377.8	292.8	401.2	297.6	257	194.4	233	107.6	64.5	38.4	43.1	19.4
21.25	19.4	375.5	548.4	382.5	300	405.8	302.4	259.4	196.8	235.4	107.6	64.5	38.4	43.1	19.4
21.5	19.6	378	550.9	387.4	307.3	406	302.6	262	199.4	238	107.8	67.1	38.6	45.7	19.6
21.75	19.6	382.7	550.9	392	314.4	410.7	307.3	266.8	201.8	240.4	110.2	69.5	40.9	45.7	19.6
22	19.4	382.5	552.9	396.5	321.3	412.8	307.1	271.4	206.5	242.6	110	71.7	40.7	45.5	19.4
22.25	19.4	387.2	552.9	401.2	323.7	415.1	309.5	271.4	208.9	245	110	74	40.7	45.5	19.4
22.5	19.6	389.7	555.4	406	335.7	417.6	314.4	276.3	209.1	247.6	110.2	74.2	43.3	48	19.6
22.75	19.4	394.2	557.5	412.8	342.6	419.7	316.6	278.5	213.7	249.8	112.4	76.4	43.1	47.8	19.4
23	19.6	396.7	557.7	417.6	347.5	422.3	321.5	283.5	216.3	252.4	112.6	79	43.3	50.4	19.6
23.25	19.6	399	557.7	422.3	352.2	424.6	321.5	285.9	218.7	254.8	112.6	81.4	43.3	50.4	19.6
23.5	19.6	401.4	560	426.9	356.9	429.2	323.9	285.9	221.1	257.2	112.6	83.8	45.7	50.4	19.6
23.75	19.6	403.7	560	433.8	361.6	431.5	328.6	290.7	223.5	259.6	115	86.2	45.7	50.4	19.6
24	19.6	406	562.3	440.8	368.7	433.8	331	293	228.4	262	115	88.6	45.7	52.8	19.6
24.25	19.6	408.3	562.3	447.7	373.4	436.1	335.7	295.4	230.8	266.8	117.4	91	45.7	52.8	19.6
24.5	19.6	413	562.3	452.3	378	440.8	338.1	300.2	233.2	269.2	117.4	93.4	48	52.8	19.6
24.75	19.6	417.6	564.6	456.9	387.4	443.1	340.5	302.6	235.6	271.6	117.4	95.8	48	55.2	19.6
25	19.8	420.1	564.8	461.7	389.9	445.6	343	302.8	238.2	274.1	120	98.4	48.2	55.4	19.8
25.25	19.8	424.8	567.1	466.3	394.6	447.9	347.7	307.5	240.6	276.5	120	98.4	50.6	55.4	19.8
25.5	19.8	429.4	567.1	470.9	401.6	452.5	350.1	307.5	243	278.9	120	100.8	50.6	57.8	19.8
25.75	19.8	434	569.3	475.5	403.9	454.8	354.8	309.9	247.8	281.3	122.4	100.8	53	57.8	19.8
26	19.8	438.7	571.6	482.4	408.5	457.1	361.8	312.3	250.2	283.7	122.4	100.8	53	60.1	19.8
26.25	19.8	441	571.6	487	413.2	459.4	364.2	314.6	252.6	286.1	124.8	103.2	53	60.1	19.8
26.5	19.8	436.3	573.9	493.9	417.8	464	368.9	317	255	288.5	124.8	103.2	55.4	62.5	19.8
26.75	20	438.9	574.1	498.6	422.7	466.5	373.8	321.9	257.6	293.4	127.4	103.4	55.6	62.7	20
27	20	438.9	576.4	507.8	427.3	468.8	378.4	324.3	262.4	295.8	129.9	105.8	55.6	62.7	20
27.25	20	443.5	578.7	514.7	431.9	471.1	385.4	324.3	264.8	298.2	129.9	105.8	58	65.1	20
27.5	20	448.1	581	519.3	436.5	473.4	390.1	329	267.2	300.6	132.3	105.8	58	65.1	20

27.75	20	441.2	581	523.8	443.5	478	397.1	331.4	272	303	132.3	105.8	60.3	67.5	20
28	20	441.2	583.3	526.1	445.8	480.3	401.8	336.1	274.3	307.7	132.3	105.8	60.3	67.5	20
28.25	20	441.2	585.6	530.7	452.7	482.6	406.4	338.5	276.7	310.1	134.7	105.8	62.7	67.5	20
28.5	19.8	441	585.4	532.8	457.1	487	413.2	340.7	278.9	312.3	136.9	105.6	62.5	69.7	19.8
28.75	20.2	441.4	588	533.2	462.1	489.7	418.2	345.8	284.1	317.4	139.7	106	62.9	70.1	20.2
29	20.2	439.1	590.3	537.7	466.7	492	422.9	348.1	286.5	319.8	139.7	106	65.3	72.5	20.2
29.25	20.2	441.4	590.3	540	469	494.3	425.2	350.5	288.9	324.5	139.7	106	65.3	72.5	20.2
29.5	20	441.2	592.4	542.1	473.4	496.4	429.6	355	293.4	326.7	141.9	105.8	67.5	72.3	20
29.75	20.2	439.1	594.9	546.9	475.9	498.8	434.4	355.2	296	329.2	144.5	106	67.7	74.8	20.2
30	20.2	439.1	597.2	549.2	478.2	501.1	439.1	359.9	300.8	331.6	144.5	106	70.1	74.8	20.2
30.25	20.2	439.1	597.2	553.7	482.8	503.4	443.7	359.9	303.2	336.3	149.3	106	70.1	77.2	20.2
30.5	20.2	436.7	599.5	558.3	487.4	505.7	448.3	364.6	305.5	338.7	149.3	106	70.1	77.2	20.2
30.75	20.4	434.6	602	563.1	489.9	508.2	453.1	367.1	310.5	343.6	152	106.2	72.7	79.8	20.4
31	20.4	528.8	604.3	567.7	494.5	510.5	457.7	369.5	312.9	346	154.4	106.2	72.7	79.8	20.4
31.25	20.4	535.7	604.3	569.9	494.5	510.5	462.3	374.2	317.6	350.7	154.4	106.2	75	79.8	20.4
31.5	20.2	549.2	606.4	574.3	498.8	514.9	469	378.6	322.1	352.8	156.6	106	74.8	82	20.2
31.75	20.2	558.3	608.6	578.9	501.1	510.3	471.3	381	324.5	357.5	159	108.4	77.2	82	20.2
32	20	562.7	608.4	581	500.9	507.8	478	383.1	326.7	359.7	161.2	105.8	77	84.2	20
32.25	20.2	562.9	610.9	585.8	503.4	510.3	480.5	385.6	329.2	364.6	163.8	108.4	79.6	84.4	20.2
32.5	20.2	562.9	613.2	590.3	505.7	512.6	485.1	388	331.6	369.3	166.2	108.4	79.6	84.4	20.2
32.75	20.4	565.4	613.4	592.8	508.2	515.1	489.9	388.2	336.5	374.2	168.9	108.6	79.8	87	20.4
33	20.6	565.6	613.6	595.3	510.7	515.3	494.7	390.7	339.1	379	169.1	108.8	82.4	87.2	20.6
33.25	20.4	565.4	615.7	599.7	512.8	517.4	499	392.8	343.6	383.5	171.3	108.6	82.2	87	20.4
33.5	20.4	569.9	615.7	602	515.1	517.4	501.3	395.2	346	388.2	173.7	108.6	84.6	89.4	20.4
33.75	20.2	567.5	617.8	604.1	517.2	517.2	505.7	397.3	350.5	392.6	175.9	110.8	84.4	89.2	20.2
34	20.2	567.5	617.8	608.6	517.2	517.2	508	397.3	352.8	399.6	178.3	108.4	86.8	91.6	20.2
34.25	20.4	567.7	620.3	611.1	517.4	519.7	512.8	397.5	357.7	404.5	180.9	111	87	91.8	20.4
34.5	20.6	567.9	620.5	615.9	517.6	522.1	515.3	397.7	360.3	409.3	183.5	111.2	87.2	92	20.6
34.75	20.6	567.9	620.5	618.2	519.9	522.1	519.9	402.4	365	416.3	186	111.2	89.6	94.4	20.6
35	20.6	565.6	622.8	618.2	519.9	522.1	522.1	404.7	367.3	420.9	188.4	111.2	89.6	94.4	20.6
35.25	20.6	567.9	622.8	620.5	522.1	524.4	524.4	404.7	372	425.6	190.8	113.6	92	94.4	20.6
35.5	20.6	565.6	622.8	620.5	522.1	524.4	526.7	407	374.4	430.2	193.2	113.6	92	96.8	20.6
35.75	20.6	565.6	625.1	625.1	522.1	524.4	529	409.3	376.7	434.8	195.6	113.6	92	96.8	20.6
36	20.8	565.8	627.6	627.6	520.1	526.9	531.5	409.5	379.2	437.3	198.2	113.8	94.6	97	20.8
36.25	20.8	563.5	627.6	627.6	520.1	526.9	536.1	409.5	383.9	442	200.6	116.2	94.6	97	20.8
36.5	20.8	563.5	627.6	629.9	520.1	529.2	536.1	411.9	386.2	444.3	203	116.2	94.6	99.4	20.8
36.75	20.8	561.2	629.9	632.2	520.1	529.2	538.3	411.9	388.6	448.9	205.5	116.2	94.6	99.4	20.8
37	20.6	561	629.7	634.3	519.9	531.3	540.4	409.3	390.7	451	207.7	116	96.8	99.2	20.6
37.25	20.8	561.2	632.2	634.5	520.1	531.5	542.9	411.9	393.2	453.5	210.3	118.6	97	101.8	20.8
37.5	20.8	558.9	632.2	636.8	520.1	531.5	542.9	411.9	397.9	455.8	212.7	118.6	99.4	101.8	20.8
37.75	21	559.1	634.7	637	522.5	534	545.4	414.4	400.4	460.6	215.3	118.8	99.6	102	21
38	21	554.5	637	639.3	522.5	534	545.4	414.4	402.8	460.6	217.7	118.8	99.6	102	21
38.25	21.2	552.5	639.5	639.5	522.7	536.5	547.9	416.9	405.3	463.1	220.3	121.4	102.2	104.6	21.2
38.5	21	552.3	639.3	637	522.5	536.3	547.7	416.7	407.4	465.2	222.5	121.2	102	104.4	21
38.75	21	554.5	641.6	637	508.8	538.5	550	414.4	409.7	467.5	227.3	121.2	102	104.4	21
39	20.8	154.8	643.7	636.8	526.9	540.6	549.8	414.2	414.2	469.6	227.1	123.4	101.8	104.2	20.8
39.25	20.8	70.7	643.7	639.1	536.1	540.6	549.8	416.5	416.5	471.9	229.6	123.4	101.8	104.2	20.8
39.5	20.8	51.6	646	639.1	536.1	542.9	549.8	418.8	418.8	471.9	234.4	123.4	101.8	104.2	20.8
39.75	21	44.7	646.2	639.3	534	545.4	552.3	419	421.3	474.4	237	126	104.4	104.4	21
40	20.8	42.1	646	641.4	533.8	545.2	552.1	421.1	425.8	476.5	239.2	125.8	104.2	106.6	20.8
40.25	20.8	42.1	648.3	639.1	533.8	547.5	552.1	423.5	428.1	476.5	241.6	128.2	104.2	104.2	20.8
40.5	20.8	42.1	648.3	639.1	533.8	547.5	552.1	425.8	430.4	478.8	244	128.2	104.2	104.2	20.8
40.75	20.8	35	648.3	657.5	538.3	549.8	552.1	425.8	432.7	481.1	246.4	128.2	104.2	104.2	20.8
41	20.6	34.8	648.1	661.9	565.6	551.9	554.1	425.6	434.8	480.9	248.6	130.5	104	106.4	20.6
41.25	20.6	37.2	650.4	682.7	567.9	554.1	563.3	430.2	439.5	483.2	251	130.5	104	106.4	20.6
41.5	20.8	37.4	648.3	678.3	558.9	554.3	568.1	432.7	442	488	253.6	130.7	104.2	106.6	20.8
41.75	20.6	37.2	645.8	678.1	558.7	554.1	570.1	437.1	444.1	490.1	255.8	130.5	104	106.4	20.6
42	20.8	37.4	646	673.6	561.2	554.3	572.6	444.3	446.6	494.9	258.4	133.1	104.2	106.6	20.8

42.25	20.8	37.4	646	669	572.6	554.3	574.9	448.9	448.9	497.2	260.8	133.1	104.2	106.6	20.8
42.5	20.8	37.4	646	669	572.6	554.3	574.9	453.5	451.2	499.5	263.2	135.5	104.2	106.6	20.8
42.75	20.8	37.4	646	664.4	568.1	554.3	577.2	458.1	453.5	504	265.6	135.5	104.2	106.6	20.8
43	20.8	39.8	648.3	664.4	565.8	554.3	577.2	462.7	455.8	506.3	268	135.5	104.2	106.6	20.8
43.25	20.8	39.8	648.3	659.8	556.6	554.3	577.2	465	458.1	508.6	270.4	137.9	104.2	106.6	20.8
43.5	21	40	648.5	657.7	561.4	554.5	579.7	469.8	460.6	511.1	273	138.1	104.4	106.8	21
43.75	21	40	650.8	648.5	561.4	556.8	579.7	474.4	462.9	511.1	275.3	140.5	106.8	106.8	21
44	21.2	40.2	651	641.8	568.5	557	579.9	476.9	465.4	513.6	277.9	140.7	104.6	107	21.2
44.25	21	40	650.8	634.7	566	559.1	579.7	479	467.5	515.7	280.1	142.9	106.8	106.8	21
44.5	21	40	653.1	627.8	559.1	559.1	579.7	481.3	469.8	515.7	282.5	142.9	106.8	106.8	21
44.75	21.2	37.8	653.3	621.1	561.6	559.3	579.9	486.1	472.3	518.2	285.1	143.1	107	107	21.2
45	21	40	653.1	616.3	458.3	561.4	579.7	488.2	474.4	518	287.3	145.3	106.8	106.8	21
45.25	21	44.7	655.4	607.2	360.7	561.4	579.7	490.5	476.7	520.3	289.7	145.3	106.8	106.8	21
45.5	21.2	44.9	655.6	605.1	344.4	561.6	577.6	493	479.2	520.5	292.3	147.9	107	107	21.2
45.75	21	44.7	655.4	598	337.1	563.7	577.4	495.1	481.3	520.3	294.4	147.7	106.8	106.8	21
46	21	44.7	655.4	595.7	334.8	566	577.4	495.1	483.6	522.5	296.8	150.1	106.8	106.8	21
46.25	21	44.7	657.7	591.1	332.4	566	577.4	497.4	485.9	522.5	299.2	150.1	104.4	106.8	21
46.5	21	44.7	657.7	584.3	332.4	568.3	575.1	497.4	488.2	522.5	301.6	150.1	106.8	106.8	21
46.75	21	47.1	657.7	582	330	568.3	575.1	499.7	490.5	524.8	304	152.6	104.4	106.8	21
47	21.2	44.9	660.2	577.6	325.5	568.5	575.3	502.1	493	525	306.5	152.8	107	107	21.2
47.25	21	44.7	660	572.8	322.9	570.5	575.1	501.9	492.8	524.8	308.7	155	106.8	106.8	21
47.5	21.2	44.9	662.5	568.5	320.8	570.7	573	504.4	495.3	525	311.3	155.2	104.6	107	21.2
47.75	21.2	44.9	662.5	566.2	318.4	573	573	504.4	497.6	525	313.7	157.6	104.6	109.4	21.2
48	21.2	47.3	664.8	561.6	316	575.3	573	506.7	499.9	527.3	316	157.6	107	107	21.2
48.25	21.4	45.1	665	538.9	309.1	575.5	573.2	506.9	500.1	525.2	318.6	157.8	107.2	107.2	21.4
48.5	21.2	47.3	664.8	538.7	301.8	575.3	573	506.7	502.1	527.3	320.8	160	107	107	21.2
48.75	21.2	47.3	667.1	536.5	299.4	577.6	570.7	509	504.4	527.3	323.1	160	107	107	21.2
49	21.2	47.3	667.1	534.2	299.4	577.6	573	509	506.7	527.3	325.5	160	107	107	21.2
49.25	21.2	47.3	669.4	531.9	301.8	579.9	573	509	509	527.3	327.9	162.4	107	109.4	21.2
49.5	21.4	47.5	669.6	525.2	299.6	580.1	570.9	511.5	509.2	527.5	330.4	165	107.2	109.6	21.4
49.75	21	47.1	671.5	522.5	299.2	582	570.5	511.1	511.1	527.1	332.4	164.6	106.8	109.2	21
50	21.4	47.5	671.9	518.4	297.2	582.4	570.9	513.8	511.5	527.5	335.2	167.4	107.2	109.6	21.4
50.25	21.2	47.3	674	511.3	294.6	582.2	568.5	513.6	513.6	529.6	337.3	167.2	104.6	109.4	21.2
50.5	21.2	47.3	674	511.3	294.6	584.5	568.5	513.6	515.9	529.6	339.7	167.2	107	109.4	21.2
50.75	21.4	45.1	676.5	506.9	292.5	584.7	568.7	513.8	516.1	529.8	342.3	169.9	107.2	109.6	21.4
51	21.4	47.5	676.5	495.5	292.5	587	568.7	516.1	518.4	529.8	344.6	169.9	104.8	109.6	21.4
51.25	21.2	47.3	678.7	490.7	289.9	586.8	568.5	515.9	518.2	529.6	344.4	172.1	107	109.4	21.2
51.5	21.2	44.9	678.7	486.1	287.5	589	561.6	515.9	520.5	529.6	349.1	172.1	107	109.4	21.2
51.75	21.2	47.3	681	479.2	287.5	589	559.3	518.2	520.5	529.6	349.1	174.5	107	109.4	21.2
52	21.4	49.8	681.2	477.1	290.1	589.2	559.5	518.4	522.9	529.8	351.7	174.7	107.2	109.6	21.4
52.25	21.4	49.8	683.5	472.5	290.1	591.5	557.2	518.4	525.2	529.8	354	174.7	107.2	109.6	21.4
52.5	21.4	38	685.8	426.4	285.3	591.5	568.7	520.7	525.2	529.8	356.4	177.1	107.2	109.6	21.4
52.75	21.6	38.2	681.4	438.1	287.9	591.7	573.4	527.7	527.7	532.3	361.3	179.7	107.4	109.8	21.6
53	21.2	40.2	681	437.7	285.1	591.3	573	531.9	527.3	536.5	360.9	179.3	107	109.4	21.2
53.25	21.2	40.2	681	435.4	287.5	591.3	570.7	536.5	527.3	538.7	363.2	179.3	107	109.4	21.2
53.5	21.2	40.2	683.3	433.1	287.5	593.6	573	538.7	529.6	541	367.9	181.7	107	109.4	21.2
53.75	21.2	40.2	683.3	426.2	287.5	593.6	568.5	541	531.9	543.3	367.9	181.7	104.6	111.8	21.2
54	21.4	40.4	683.5	419.4	287.7	593.8	566.4	543.5	532.1	543.5	370.5	184.3	107.2	112	21.4
54.25	21.4	38	685.8	412.5	287.7	593.8	566.4	543.5	532.1	545.8	372.8	184.3	107.2	112	21.4
54.5	21.4	38	685.8	407.8	287.7	596.1	566.4	543.5	534.4	545.8	375.2	186.8	107.2	112	21.4
54.75	21.6	38.2	686	403.4	287.9	596.3	564.3	543.7	534.6	546	380	187	107.4	112.2	21.6
55	21.6	40.6	686	401	287.9	596.3	562	543.7	536.9	548.3	380	189.4	107.4	112.2	21.6
55.25	21.6	40.6	688.3	394	287.9	598.6	559.7	541.4	536.9	548.3	384.7	189.4	107.4	112.2	21.6
55.5	21.4	40.4	688.1	386.8	287.7	598.4	557.2	541.2	536.7	548.1	386.8	191.6	107.2	112	21.4
55.75	21.6	40.6	688.3	380	287.9	598.6	552.9	541.4	539.1	548.3	389.4	191.8	107.4	114.6	21.6
56	21.6	40.6	688.3	375.4	290.3	598.6	552.9	539.1	539.1	548.3	389.4	194.2	107.4	114.6	21.6
56.25	21.8	38.4	688.5	370.9	290.5	598.8	553.1	537.1	541.6	548.5	394.2	194.4	107.6	114.8	21.8
56.5	21.8	38.4	688.5	366.2	290.5	598.8	550.8	537.1	541.6	548.5	394.2	196.8	107.6	114.8	21.8

56.75	21.8	38.4	690.8	361.5	292.9	601.1	550.8	534.8	543.9	548.5	398.9	196.8	107.6	114.8	21.8
57	21.8	38.4	690.8	354.4	292.9	601.1	546.2	534.8	543.9	548.5	398.9	199.2	107.6	114.8	21.8
57.25	21.8	40.8	693.1	349.7	292.9	603.4	543.9	534.8	543.9	546.2	403.6	199.2	107.6	117.2	21.8
57.5	21.8	40.8	693.1	345	292.9	603.4	541.6	532.5	546.2	546.2	405.9	201.6	107.6	117.2	21.8
57.75	21.8	40.8	693.1	337.9	292.9	603.4	539.4	532.5	546.2	546.2	408.2	201.6	107.6	117.2	21.8
58	21.8	40.8	693.1	337.9	295.2	605.7	537.1	532.5	548.5	546.2	410.5	201.6	107.6	117.2	21.8
58.25	21.8	38.4	693.1	330.8	295.2	605.7	532.5	532.5	548.5	546.2	412.9	204	107.6	119.6	21.8
58.5	21.8	40.8	693.1	323.7	295.2	605.7	527.9	532.5	550.8	546.2	415.2	206.5	107.6	119.6	21.8
58.75	21.6	38.2	692.9	314.1	295	605.5	525.4	530	550.6	546	417.3	206.3	107.4	119.4	21.6
59	21.6	38.2	695.3	311.7	297.4	607.8	525.4	527.7	550.6	546	421.9	208.7	107.4	121.8	21.6

Appendix D Residual sections

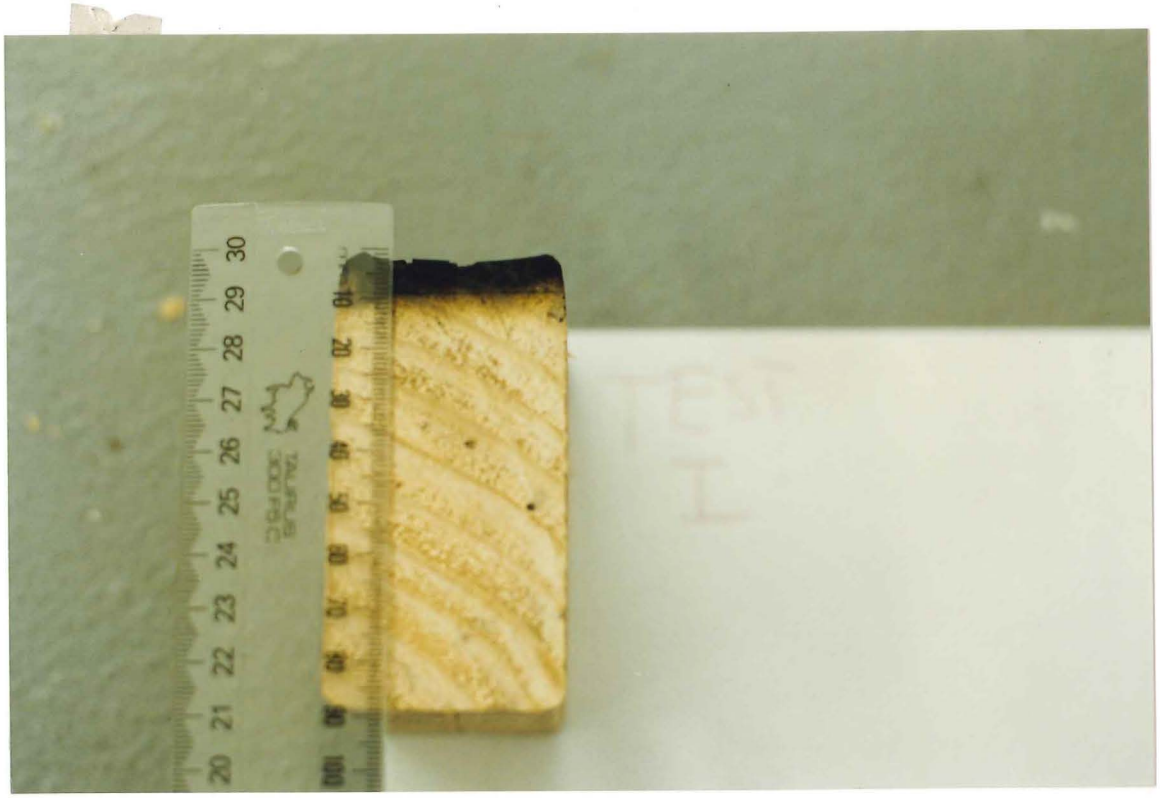


Figure D.1: Residual section from test 1 (12.5 mm Fyreline at 25 kW/m^2).

Figure D.2: Residual section from test 2 (12.5 mm Fyreline at 50 kW/m^2).

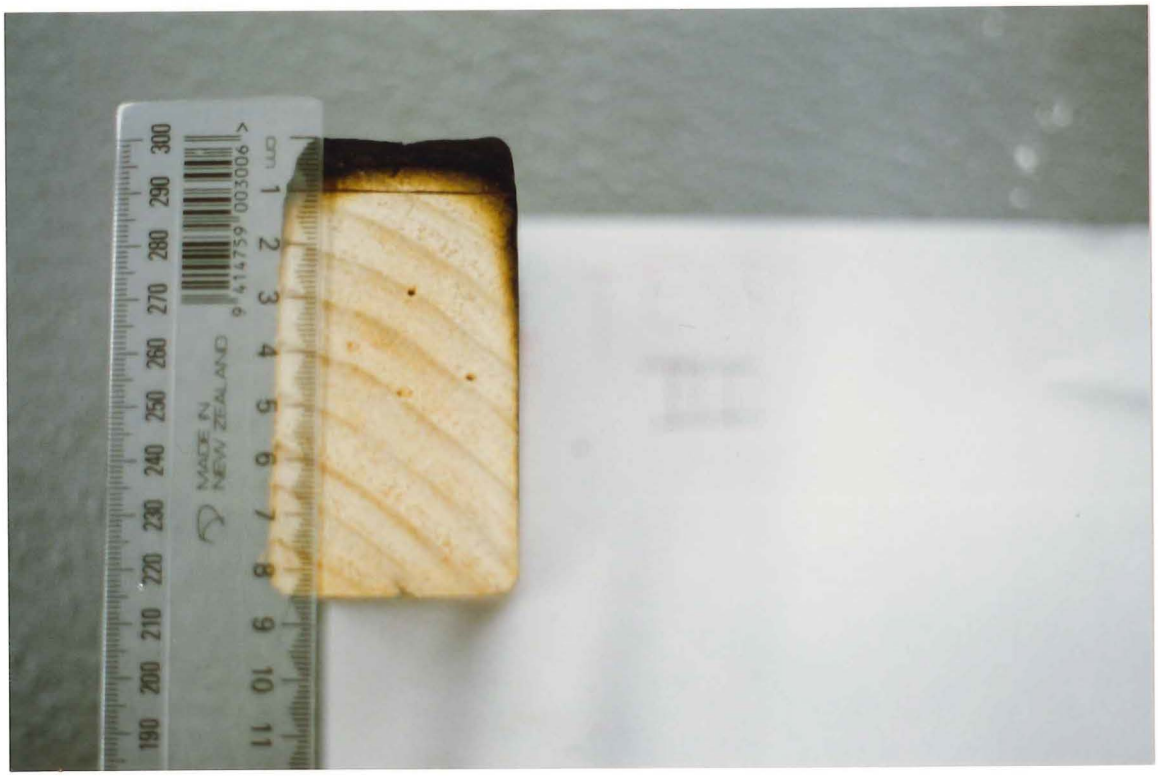


Figure D.3: Residual section from test 3 (12.5 mm Fyreline at 100 kW/m^2).

Figure D.4: Residual section from test 4 (12.5 mm Fyreline at 75 kW/m^2).

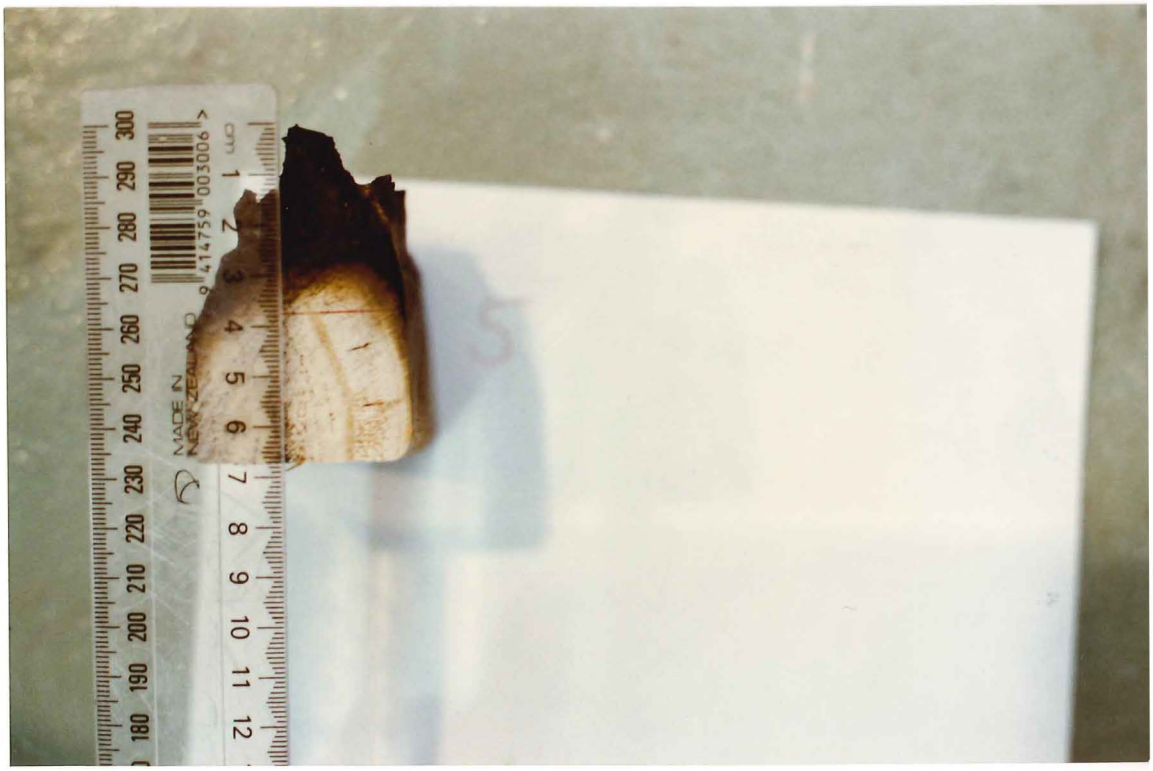


Figure D.5: Residual section from test 5 (12.5 mm Fyreline with glasswool).

Figure D.6: Residual section from test 6 (12.5 mm Fyreline with sheepwool).

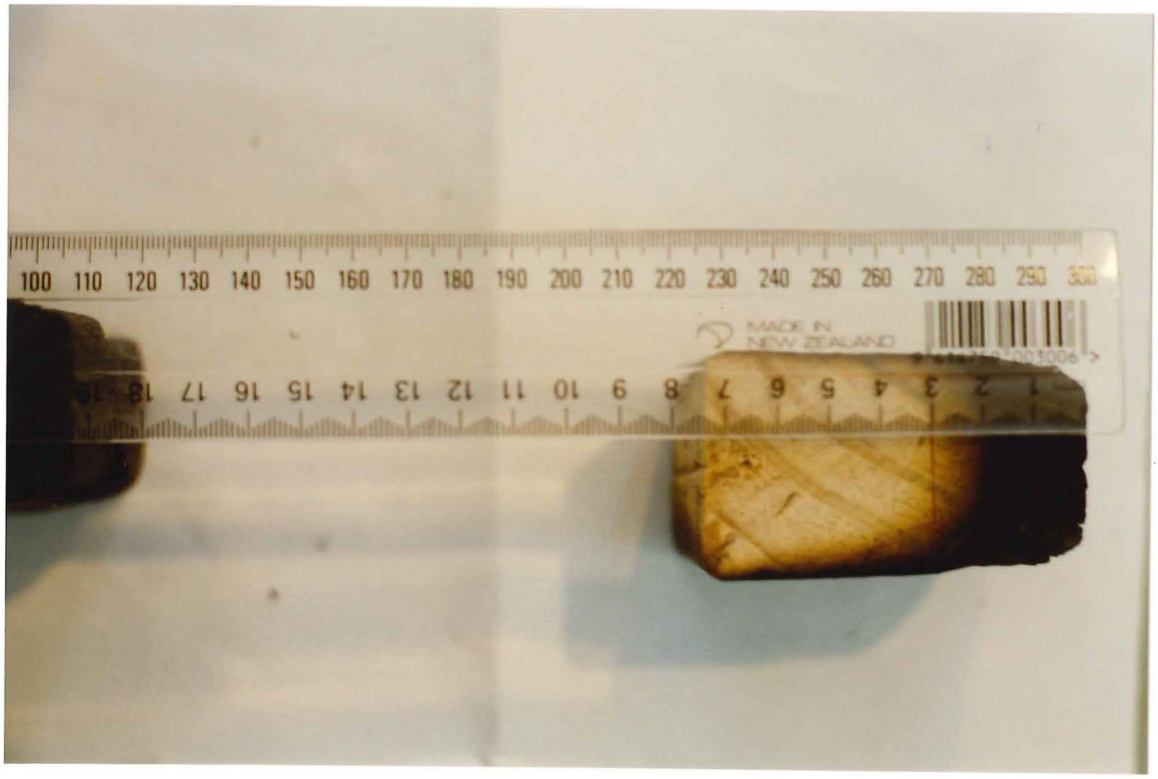


Figure D.7: Residual section from test 7 (9.5 mm Fyreline).

Figure D.8: Residual section from test 8 (16 mm Fyreline).

Figure D.9: Residual section from test 9 (19 mm Fyreline)>

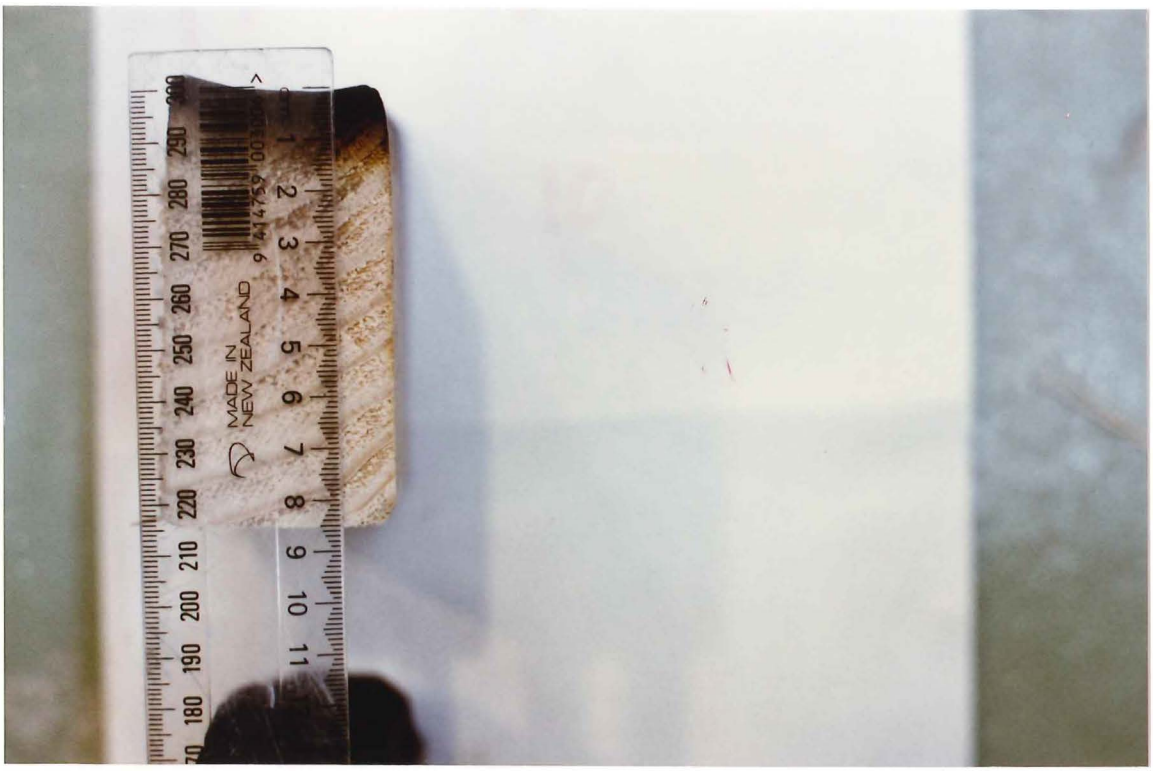


Figure D.10: Residual section from test 10 (2*12.5 mm Fyreline).

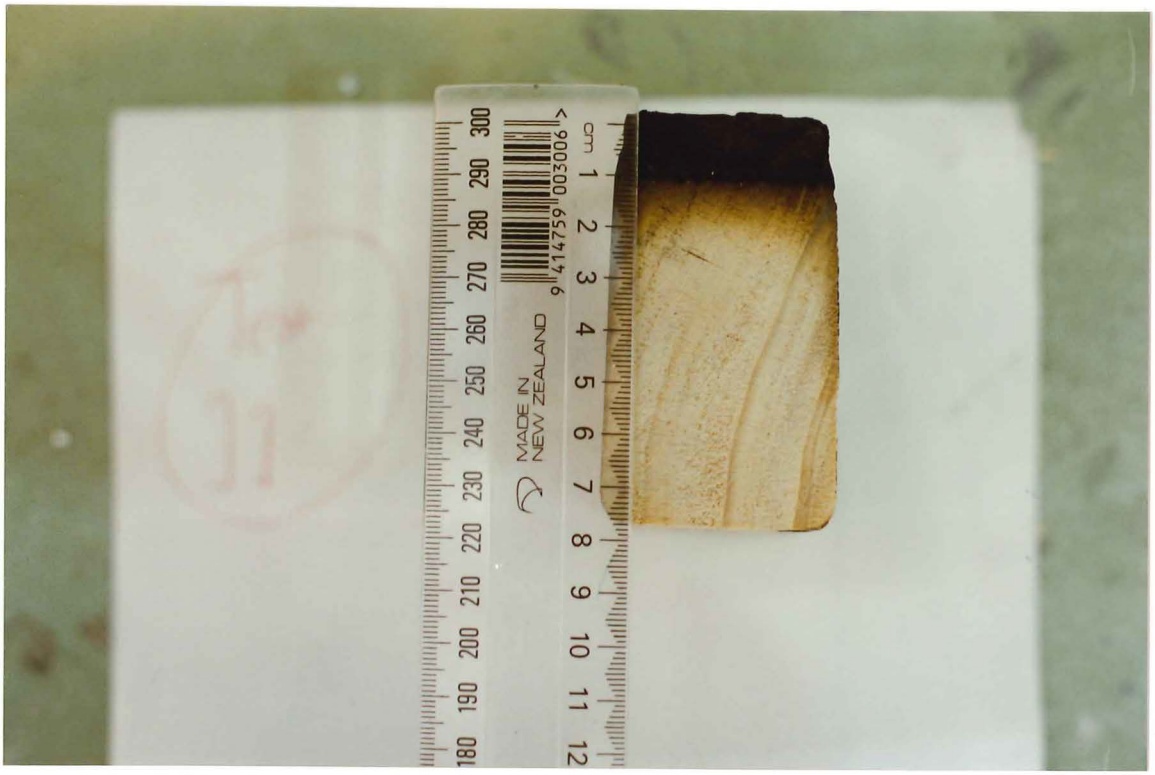


Figure D.11: Residual section from test 11 (9.5 mm Standard GIB board)

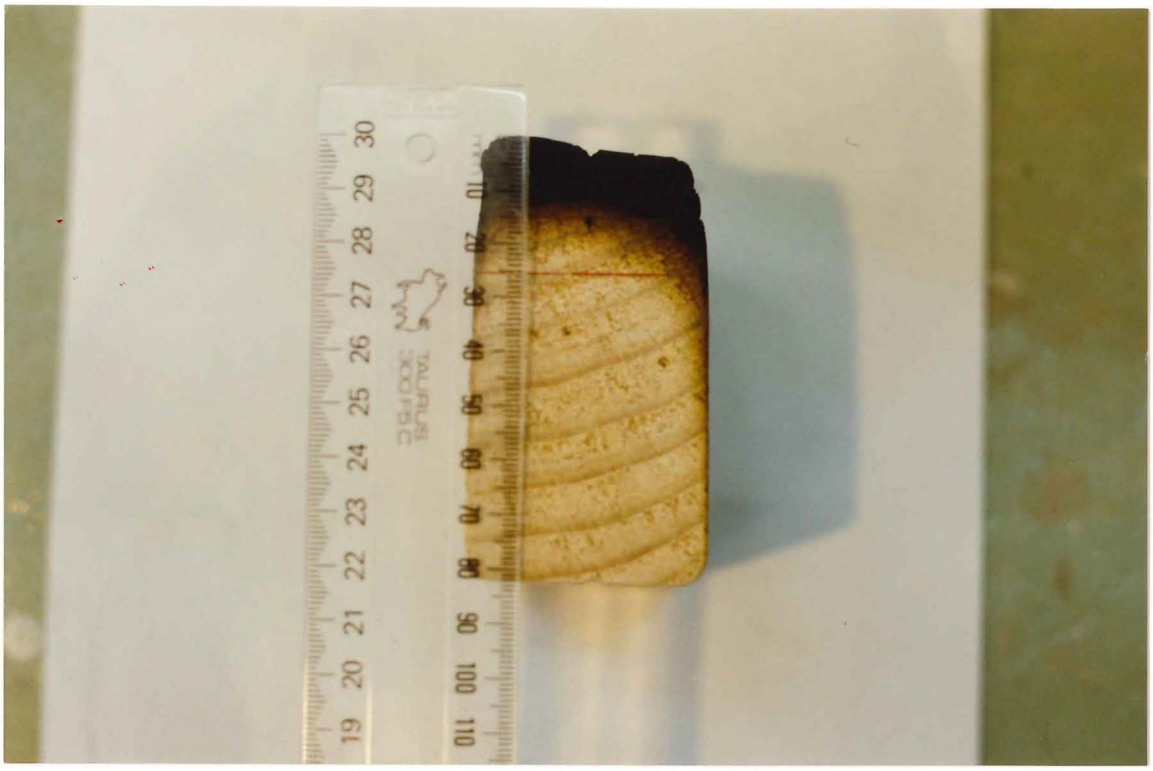


Figure D.12: Residual section from test 12 (12.5 mm standard GIB board).

Figure D.13: Residual section from test 13 (12.5 mm Fyreline with 35*90 stud)

Figure D.14: Residual section from test 14 (12.5 mm Fyreline with 7mm joint).

Figure D.15: Residual section from test 15 (12.5 mm Fyreline with 20 mm joint)

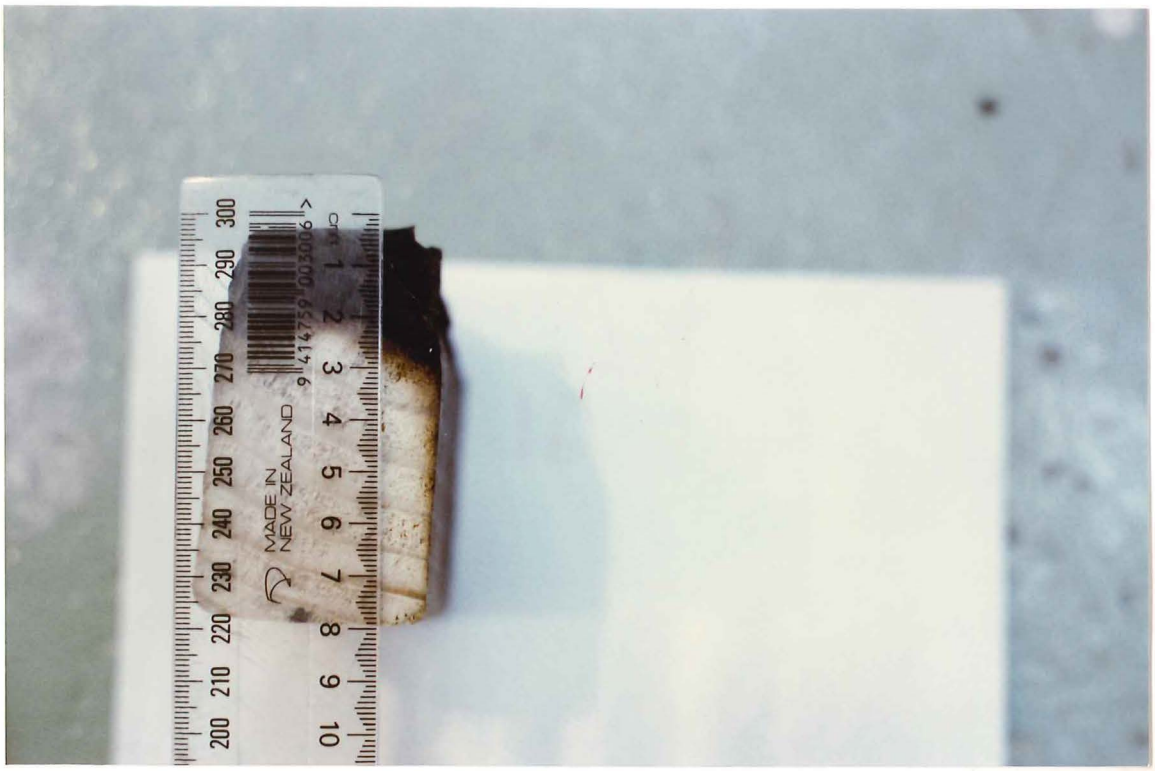


Figure D.16: Residual section from test 16 (12.5 mm Fyreline with 13 mm joint).

FIRE ENGINEERING RESEARCH REPORTS

95/1	**Full Residential Scale Backdraft**	**I B Bolliger**
95/2	**A Study of Full Scale Room Fire Experiments**	**P A Enright**
95/3	**Design of Load-bearing Light Steel Frame Walls for Fire Resistance**	**J T Gerlich**
95/4	**Full Scale Limited Ventilation Fire Experiments**	**D J Millar**
95/5	**An Analysis of Domestic Sprinkler Systems for Use in New Zealand**	**F Rahmanian**
96/1	**The Influence of Non-Uniform Electric Fields on Combustion Processes**	**M A Belsham**
96/2	**Mixing in Fire Induced Doorway Flows**	**J M Clements**
96/3	**Fire Design of Single Storey Industrial Buildings**	**B W Cosgrove**
96/4	**Modelling Smoke Flow Using Computational Fluid Dynamics**	**T N Kardos**
96/5	**Under-Ventilated Compartment Fires - A Precursor to Smoke Explosions**	**A R Parkes**
96/6	**An Investigation of the Effects of Sprinklers on Compartment Fires**	**M W Radford**
97/1	**Sprinkler Trade Off Clauses in the Approved Documents**	**G J Barnes**
97/2	**Risk Ranking of Buildings for Life Safety**	**J W Boyes**
97/3	**Improving the Waking Effectiveness of Fire Alarms in Residential Areas**	**T Grace**
97/4	**Study of Evacuation Movement through Different Building Components**	**P Holmberg**
97/5	**Domestic Fire Hazard in New Zealand**	**KDJ Irwin**
97/6	**An Appraisal of Existing Room-Corner Fire Models**	**D C Robertson**
97/7	**Fire Resistance of Light Timber Framed Walls and Floors**	**G C Thomas**
97/8	**Uncertainty Analysis of Zone Fire Models**	**A M Walker**
97/9	**New Zealand Building Regulations Five Years Later**	**T M Pastore**
98/1	**The Impact of Post-Earthquake Fire on the Built Urban Environment**	**R Botting**
98/2	**Full Scale Testing of Fire Suppression Agents on Unshielded Fires**	**M J Dunn**
98/3	**Full Scale Testing of Fire Suppression Agents on Shielded Fires**	**N Gravestock**
98/4	**Predicting Ignition Time Under Transient Heat Flux Using Results from Constant Flux Experiments**	**A Henderson**
98/5	**Comparison Studies of Zone and CFD Fire Simulations**	**A Lovatt**
98/6	**Bench Scale Testing of Light Timber Frame Walls**	**P Olsson**
98/7	**Exploratory Salt Water Experiments of Balcony Spill Plume Using Laser Induced Fluorescence Technique**	**E Y Yii**

School of Engineering
University of Canterbury
Private Bag 4800, Christchurch, New Zealand

Phone 643 364-2250
Fax 643 364-2758